Analysis of Factors Affecting College Students' School Loyalty, Focusing on College Life Satisfaction, Major Satisfaction, And Academic Self-Efficacy

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Abstract
A student’s life in college can be said to be a period of acquiring the ability to establish one's own way of life and actively deal with the environmental and personal problems that they face. It is also a time to prepare for the world of work while adapting to the new environment of university. Therefore, in this study, we analyzed and used previous related research with the aim of helping college students form a close relationship with the school and continuous learning without leaving the middle. First, 'School Life Satisfaction', which indicates overall satisfaction with school life; Second, 'Major Satisfaction' satisfaction with one's chosen major; Third, 'Academic Self-Efficacy', which is the ability to carry out studies; Fourth, affiliated university 'School loyalty', which indicates the formation of a friendly relationship with students. As a result of the analysis, school life satisfaction and major satisfaction had a significant effect on school loyalty, but academic self-efficacy did not. Through this study, it will be possible to find significant factors affecting the relationship between the school and students, and a continuous research direction for the improvement of the educational service that schools should provide to students and the substantializing of education that students think. Future studies should focus on factors to prevent students from dropping out.

Keywords
University life satisfaction, Major satisfaction, Academic self-efficacy, School loyalty

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Introduction

A student’s life in college is a time of rapid environmental change. On joining college, students experience the freedom and responsibility that comes with it, and their interpersonal relationships expand and diversify. In terms of academics, the students have to plan and manage themselves, as opposed to the passive study method (Hyun, Cha et al., 2006). Students experience an autonomous life in which they plan and take responsibility for their own time through university life, and this experience becomes a stepping stone for a successful social life. In other words, the kind of education and services at the university and the kind of life they had will have a profound impact on the students’ future lives. Therefore, it is necessary to develop and examine a model of various programs to effectively educate students in colleges and universities (W. S. Joo, Byun et al., 2021).

University students recognize college as an institution of higher education that seeks the truth, and as the last step before transitioning to the professional world; thus, it is an important period to develop the competencies required by the respective occupational group professions (Moon, Bak et al., 2012). In particular, it is a period of early adulthood that prepares for society along with psychological independence from parents. It is an important time to establish self-identity and achieve tasks such as employment (Choi, 2009). In addition, the various experiences in college life have a great impact on social life. The most important task of a college student is to fully experience the life so as to improve self-development and quality of life (Yu, Hwang et al., 2010). In addition, it is expected that through university education, the students will acquire in-depth knowledge on their majors and return to the society with expertise (S. Y. Park, Cha et al., 2021). However, recently, college students have been dropping out of school for various reasons. Statistics show that the number is on a steady increase from 3.6% in 2010 to 5.2% in 2018 and 7.0% in 2020 (Huh, 2016). This phenomenon can result to a decrease in the school age population and in the enrollment rate of students, which will eventually pose a threat to the existence of the university.

As the domestic school-age population continued to decline from 2000, the school-age considered for university admission (18-years-old), decreased by 130,000 in 10 years, i.e., from 8,268,889 in 2000 to 6,97,847 in 2010. It is predicted that it will further decrease to 500,000.126 in 2020, 440,837 in 2030, and 43,2391 in 2040 (E. S. Park, 2020). Therefore, universities should pay great attention not only to the continuous recruitment of students, but also on how minimize the dropout rate of college students who are a secured resource for the future. The focus should be in maintaining and managing students professionally. Colleges that minimize dropout rates will be able to operate smoothly, while those that fail to solve the dropout problem will have financial difficulties (S.-Y. Kim, 2006). Dropout should not be considered as a college problem only. From the student’s perspective, academic interruption can lead to frustration in obtaining a degree and to the interruption of an individual’s educational career. From the society’s perspective, it results in failure to meet the policy goals of nurturing manpower or improving access to higher education. To solve the dropout problem, the need for systematic research on the causes of dropouts, and what college students consider important in school life, and what they need, are increasingly needed (Y. Im & Lee, 2003; S.-Y. Kim, 2012).

In a related previous study, S.-H. Im and Han (2013) analyzed the effect on dropout rates according to the characteristics of private universities such as location, size, and affiliated university. Youn and Jang (2015) found that the risk of dropout was high in the first year or less and between 3 and 4 years after admission in a cause analysis study that affects the dropout period of college students. Factors such as gender, high school aspirations, high school type, and career advancement education experience were found to affect dropout. In the study of college-level factor analysis that affects dropout of college students by J.-Y. Chung, Sun et al. (2015), the higher the final enrollment rate for admission, the higher the competition rate for freshmen within the quota, and the lower the college dropout rate. The same study reported that a high education cost per student lowered the dropout rate, and a high dormitory acceptance rate lowers the college dropout rate in relation to the educational conditions of the university (J.-Y. Chung, Sun et al., 2015). Also, Baithesda, Chen et al. (2021), who developed the college satisfaction test, reported that students with lower school satisfaction were more likely to consider transfer preparation or retake.

2022
The prevention of dropout of college students and the success of students to adopt to school life is related to their preferences for their college; and students who are satisfied with their school life adjust well and show relatively high achievement in life after graduation (Ryan & Deci, 2000b). Therefore, university authorities have developed an image and actual conditions that students think, feel, and evaluate, as well as the academic system of each university, so that students can apply to a particular university and complete their studies with the aid of various university policies and educational support plans. Therefore, there is a need for practical research on the evaluation and satisfaction of students (undergraduate) for each college or major engineering department; in addition to the school loyalty that affects the school’s own conditions and willingness of students to continue with academics.

This study shows that the degree of satisfaction with college life (S. Y. Park, Cha et al., 2021), which is the feeling, emotion, or attitude that students get while living in a particular school, significantly influence their desires in various activities, personal characteristics and choice of majors within their chosen major (Y. Han, 2014). Through interaction with the conditions surrounding the subject, knowledge and performance are improved in an academic context; in addition, there is improvements in the emotional, cognitive, and affective aspects (i.e., positive thoughts and attitudes) about their major. Another study analyzed how academic self-efficacy, the mediating driving force, affects school loyalty (E.-K. Chung & Oh, 2019), which is defined as a friendly attitude toward school and the willingness to maintain a friendly relationship.

To this end, we selected the research problems based on review of previous studies and analyzed the structural relationship between variables. The research questions established for analysis were as follows:

Research Question 1. How does satisfaction with college life affect school loyalty?
Research Question 2. How does major satisfaction affect school loyalty?
Research Question 3. How does academic self-efficacy affect school loyalty?

**Theoretical Background**

**Satisfaction with College Life**

Satisfaction with college life is a feeling, emotion, or attitude that students acquire while living in school. It is a concept that indicates whether a school is meeting the expectations of students and can be expressed as a key educational performance variable at a time when consumer-oriented school education is emphasized (Zammitti, Magnano et al., 2021). Students obtain satisfaction by rationally resolving their desires in various activities, and through interactions with others students and professors, relationships are harmonized and school life as a whole is satisfactory. It refers to the state (S. Y. Park, Cha et al., 2021).

In a related previous study, Arcaro (1995) reported that learning satisfaction improves when education that satisfies learners is continuously provided. Another study found that demographic characteristics (gender, age, educational background, occupation, area of residence) had an effect on satisfaction with college life (Arcaro, 1995). H. Kang (2010) argued that there is a statistically significant difference in career preparation behavior according to age in a study on the relationship between socio-demographic variables and career preparation behaviors of college students.

Therefore University life satisfaction is a key aspect for a successful university life, and it has significant influence in terms of personal growth and development, because schools play a vital role in the student’s harmonious adaptation to changes in the social environment through the process of constant change and growth. As such, school is not just a place to acquire knowledge, but helps in fostering a sense of cooperation, consideration, desirable values and achievements. In addition, it is very important for college students to spend their college life satisfactorily, and students that are satisfied in school adapt well to life outside the school and have a higher sense of accomplishment and confidence (Ok-Ju, 2020; Ryan & Deci, 2000a). To sum it up, college life satisfaction is the degree to which students are satisfied with their educational activities in terms of human relationships with professors and peers in a school environment. It is a subjective feeling that consists of an attitude of happiness and satisfaction in school life. It can be defined as a subjective and personal phenomenon based on an individual’s perspective of the agreement between reality and one’s expectations (C. Lee, 2014).
Major Satisfaction

Majors in colleges are operated internally through interactions between professors and students, who are members of the major, and the external environment such as friends and social perception of jobs. Students’ major selection is generally based on personal factors such as academic performance, aptitude, interest, etc., parents or teachers. Students’ satisfaction with their majors selected by these personal and environmental factors is the most important factor in choosing and deciding their career or occupation (M. S. Kang & Bang, 2015).

Major satisfaction refers to the degree to which one’s current major is satisfied compared to the criteria for career and occupation set by an individual (Jung & Yang, 2013; Pettzer, Shisana et al., 2009). If college students match the criteria for their preferred career and major in it, then their major satisfaction will be high (H.-I. Park & Koo, 2011).

To understand the essential aspects of major satisfaction, it is necessary to first look at the meaning of life satisfaction as defined by Veenhoven (1991). Veenhoven (1991) defined life satisfaction as the degree of goal satisfaction perceived by an individual emotionally and cognitively. In light of that definition, the emotional aspect of major satisfaction can be seen to mean the degree of positive attitude, emotion, and pleasure toward the major. On the other hand, the cognitive aspect means one’s perception and evaluation to the extent the goals set for the career or occupation have been met (Veenhoven, 1991).

Vaquero-Solis, Tapia-Serrano et al. (2021) defined major satisfaction as “a product of the judgment process that evaluates the department to which one belongs in comparison with the criteria for career or occupation set by an individual”. With reference to this definition, satisfaction with a major can be evaluated by comparing one’s own expectations with the vocational reference group, and individual expectations, careers, and judgment on the vocational reference group as influenced by social. Perception affects major satisfaction.

Major satisfaction of college students is significant because it determines not only college life, but also future career directions and occupations according to the major selected by an individual (Holland, 1997). To sum it up, major satisfaction is formed by the interaction between personal characteristics and the environment surrounding the major within one’s major, and emotional, such as positive thoughts and attitudes toward the major obtained through this process. It is a comprehensive concept including cognitive and affective aspects (Y. Han, 2014).

Academic Self-Efficacy

Academic self-efficacy is a concept derived from self-efficacy, and is necessary for learners to acquire new knowledge or skills. Self-efficacy is the ability of an individual to organize and execute actions to achieve a certain outcome. Refers to a personal judgment of one’s ability. Academic self-efficacy is a dynamic self-belief related to a specific performance area or activity as a major cognitive variable that determines the behavior to choose and for how long the behavior will last. belief that you can do it (Bandura, 1993; Putwain, Symes et al., 2016). The ability to perform studies in an academic context, which is the driving force that mediates knowledge and performance. It is the learner’s ability to organize and practice the knowledge and behaviors necessary for his/her own judgment in an academic context, and to learn and perform new knowledge and skills (A.-Y. Kim & Park, 2001). They also choose challenging tasks that directly or indirectly influence the academic process, and they strive to perform successfully (Moon, Bak et al., 2012).

Academic self-efficacy refers to the judgment of the learner’s ability to manipulate and act accordingly to perform academic tasks. Various studies defined academic self-efficacy as follows: Bong (1997) stated that it is the ability of students to perceive themselves as to whether they can successfully perform a given academic task to a certain level. A.-Y. Kim and Park (2001) defined it as the ability of learners to acquire knowledge, learn, and perform in specific situations. Another study defined it as a personal judgment made by a learner about the ability required to acquire new knowledge or skills (Bandura, 1986). The learner makes judgments about the ability to organize and execute the actions necessary to perform academic tasks according to their level of self-confidence achieved through the cognitive judgment of their ability (Bandura, 1993; Liu, Wang et al., 2014).

Learners with high academic self-efficacy have strong tolerance to emotional stimuli, choose logical problem-solving methods, reorganize information, and execute their chosen solutions.
Individuals with many successful experiences have a more positive sense of self-efficacy than individuals with many failures. Therefore, when interpreting results as sexual, self-efficacy decreases, so individual interpretation of results is important (S. Lee, 2012).

School Loyalty

School loyalty refers to the willingness of students who received educational services to maintain a friendly relationship with their alma mater by recommending their alma mater to others, participating in alumni associations, or paying donations depending on whether or not they were satisfied with the educational service (M. K. Kim, 2021). School loyalty have a positive impact on the long-term development of the university through not only financial support, but also job support for juniors through in-house recommendation and friendly word of mouth about the alma mater (Nesset & Helgesen, 2009). Therefore, the success of a university depends on the loyalty of the students to the school.

The most relevant part of college students’ school loyalty is the degree of adaptation to the school and major, and the reason for choosing it. When students join their university of choice, they naturally identify with the school, and their interest in the school and their majors increase. Therefore, the academic life at the university is also faithful, and this has a positive effect on the school grades. This reduces the tendency of students to take a leave of absence or move to another university. Of particular importance is the degree to which the department is consistent with one’s aptitude and interests, which affects school loyalty of a student throughout the university life. There will be a difference in the overall school life style and loyalty between students who simply choose a major based on their SAT scores when entering college, and students who choose a major that is related to their aptitude and interest (M. Park, 2008).

In the end, student loyalty to educational services refers to students showing positive behavior toward the university after graduation while maintaining a favorable attitude toward educational services and continuing purchases (takes) in consideration of the characteristics of educational services (Y. J. Joo, Joung et al., 2013).

From a long-term perspective, school loyalty is recognized as a significant factor affecting the relationship between the school and students, and using this advantage, the university should implement relationship marketing with students (Rojas-Méndez, Vasquez-Parraga et al., 2009). It is time to use loyalty as a strategy for the survival and performance of the university.

Research Subjects and Research Methods

The subjects of this study were 279 students of University A located in Gyeonggi-do. By grade, there were 78 first-year students, 100 second-year students, 66 third-year students, and 35 fourth-grade students. By gender, there were 95 male students and 184 female students. By major, 113 students in the humanities department, 103 in the engineering department, 55 in the arts department, and 8 other people. The questionnaire was conducted for one week, and descriptive statistical analysis, correlation analysis, and multiple regression analysis were performed using the IBM SPSS (Statistical Package for the Social Science) 21 program. The measurement model and the structural model were verified using AMOS 21. Through the verification of the measurement model, validity and discriminating power between latent variables were confirmed depending on whether each indicator sufficiently explains the latent variable. Finally, the statistical significance between path coefficients and variables was confirmed through structural relationship analysis between variables. For structural equation model analysis, measurement model analysis for validation of scale validity and significance verification of mediation paths were applied. A summary of the demographic data of the study subjects are shown in [Table 1].

Results

Descriptive Statistics

To demonstrate the general trend for each variable, we calculated the mean, standard deviation, minimum value, maximum value, skewness, and kurtosis and presented as in [Table 2]. The average of each variable was as follows: college life enjoyment M=3.553 (SD=.705), major satisfaction M=3.632 (SD=.831), academic self-efficacy M=3.369 (SD=.907), school loyalty M=1.950.
(SD=.920). We found the standard skewness for all measurement variables was ±2 or less, and the standard kurtosis was ±7 or less, forming a normal distribution.

Table 1
Demographic data of study subjects

<table>
<thead>
<tr>
<th>Division</th>
<th>Number of respondents (persons)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>male</td>
<td>95</td>
<td>34.1</td>
</tr>
<tr>
<td>female</td>
<td>184</td>
<td>65.9</td>
</tr>
<tr>
<td>By grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>78</td>
<td>28.0</td>
</tr>
<tr>
<td>2</td>
<td>100</td>
<td>35.8</td>
</tr>
<tr>
<td>3</td>
<td>66</td>
<td>23.7</td>
</tr>
<tr>
<td>4</td>
<td>35</td>
<td>12.5</td>
</tr>
<tr>
<td>By major</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td>113</td>
<td>40.5</td>
</tr>
<tr>
<td>Engineering</td>
<td>103</td>
<td>36.9</td>
</tr>
<tr>
<td>Art</td>
<td>55</td>
<td>19.7</td>
</tr>
<tr>
<td>Etc</td>
<td>8</td>
<td>2.9</td>
</tr>
<tr>
<td>Sum</td>
<td>279</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 2
Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Average (M)</th>
<th>Standard Deviation (SD)</th>
<th>Minimum value</th>
<th>Maximum value</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction with college life</td>
<td>3.553</td>
<td>.705</td>
<td>1.00</td>
<td>5.00</td>
<td>-.071</td>
<td>-.039</td>
</tr>
<tr>
<td>Major Satisfaction</td>
<td>3.632</td>
<td>.831</td>
<td>1.00</td>
<td>5.00</td>
<td>-.653</td>
<td>.819</td>
</tr>
<tr>
<td>Academic self-efficacy</td>
<td>3.369</td>
<td>.907</td>
<td>1.00</td>
<td>5.00</td>
<td>-.240</td>
<td>-.384</td>
</tr>
<tr>
<td>School loyalty</td>
<td>1.950</td>
<td>.920</td>
<td>1.00</td>
<td>5.00</td>
<td>.825</td>
<td>.442</td>
</tr>
</tbody>
</table>

*School loyalty is reverse coding

Correlation Analysis

We analyzed the correlation between each variable and presented the results as in Table 3. School loyalty showed a positive (+) correlation in college life enjoyment and major satisfaction, but there was no correlation with academic self-efficacy.

College life satisfaction showed a positive correlation coefficient of .467** (r = .467**, p < .01) with major satisfaction, and correlation coefficient of .232** (r = .232**, p < .01) with academic self-efficacy. School loyalty showed a very low negative correlation with -.172** (r = -.172**, p < .01).

Major satisfaction showed a low positive correlation coefficient of .334** (r = .334**, p < .01), and correlation coefficient of .158** (r = .158**, p < .01) with school loyalty, indicating a very low static correlation. Lastly, there was no correlation between academic self-efficacy and school loyalty.

Table 3
Correlation analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Satisfaction with college life</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Major Satisfaction</td>
<td>.467**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Academic self-efficacy</td>
<td>.232**</td>
<td>.334**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>4. School loyalty</td>
<td>-.172**</td>
<td>.158**</td>
<td>.003</td>
<td>1</td>
</tr>
</tbody>
</table>

"p<.01

Multiple Regression Analysis

Prior to the multiple regression analysis, we confirmed that all variables showed values of tolerance of 0.1 or more and Variance Inflation Factor (VIF) of 2.0 or less; thus, no multi-collinearity occurred. The results of multiple regression analysis are as shown in Table 4. The explanatory power of the
model consisting of college life satisfaction, major satisfaction, and academic self-efficacy was 37.3% (adj. R² = 36.6), and the F value was 53.303, which was statistically significant at the significance level of .05. Among the independent variables, we found that college life satisfaction (β = .439, p <.05) and major satisfaction (β = .292, p <.05) statically predicted school loyalty. In terms of academic self-efficacy, the significance level was .059 and was excluded from the model.

### Table 4
Multiple regression analysis results

<table>
<thead>
<tr>
<th>Subordination Variable</th>
<th>Independent variable</th>
<th>Non-standardization factor B</th>
<th>Standard error</th>
<th>Standardization factor B</th>
<th>t</th>
<th>p</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>School loyalty</td>
<td>(a constant)</td>
<td>1.612E-16</td>
<td>.045</td>
<td>.000</td>
<td>1.000</td>
<td></td>
<td>R²(adj. R²) = .373(.366)</td>
</tr>
<tr>
<td></td>
<td>Satisfaction with college life</td>
<td>.439</td>
<td>.051</td>
<td>.439</td>
<td>8.538</td>
<td>.000</td>
<td>.882</td>
</tr>
<tr>
<td></td>
<td>Major Satisfaction</td>
<td>.291</td>
<td>.050</td>
<td>.292</td>
<td>5.804</td>
<td>.000</td>
<td>.923</td>
</tr>
<tr>
<td></td>
<td>Academic self-efficacy</td>
<td>.095</td>
<td>.050</td>
<td>.094</td>
<td>1.895</td>
<td>.059</td>
<td>.952</td>
</tr>
</tbody>
</table>

*p < .05, n = 279

**Factor Analysis**

300 questionnaires were distributed, and only 279 questionnaires were used for the analysis, excluding questionnaires with poor responses. The characteristics of the questionnaire used in this study were as shown in [Table 5].

**Confirmatory Factor Analysis (CFA)**

Prior to constructing the structural equation model to achieve the purpose of this study, we conducted a confirmatory factor analysis to determine the validity of the latent variable to be used in the model and the measurement variables constituting the latent variable. For parameter estimation in confirmatory factor analysis, we conducted an analysis using the maximum likelihood method (ML), and the results presented as in Table 6 and Fig. 1. In the confirmatory factor analysis model, all observed variables constituting the latent variable were statistically significant (p<.01). Factor loadings were within the range of .609 to .804, hence, the observed variable constituting the latent variable can be judged to reflect the relevant latent variable suitably.

Next, we looked at the Conceptual Reliability (CR) of the measurement model. This is a reliability estimation method calculated from the error values of path coefficients and measurement variables, and it is judged to be suitable if the estimated value is 0.7 or more (Fornell & Larcker, 1981). CR is calculated by calculating the standardized factor coefficient of the measured variable and the error term of the measured variable according to the formula below. As a result of the analysis, the CR values of all measured variables were over 0.7, so it was judged that the concept reliability was secured. Convergent validity is the degree of concordance of the observed variables measuring the latent variable. The degree to which the multiple scales measuring the same concept coincide. If each measurement variable measures one and the same latent variable well, the factor load would be high. Consequently, from this result, it can be judged that the measurement index of the study properly measured the concept. To verify this, standardized factor loading (λ), CR, and AVE (Average Variance Extract) are required. First, the factor load (λ) from the observed variable to the latent variable must be 0.5 or more, and the statistical significance (C.R. > 1.96, p<.05) must be satisfied.

As a result of the analysis, we confirmed that the standardized factor loads for all observed
variables satisfied the criteria presented as 0.5 or higher and a C.R. and 8.745 or higher. Therefore, based on the analyzed $\lambda$, this measurement model was determined to have centralized validity.

Table 5
Configuration of measurement tools

<table>
<thead>
<tr>
<th>Domain</th>
<th>Researcher of the referenced tool</th>
<th>Contents of the question</th>
<th>Number of items</th>
<th>Cronbach's Alpha</th>
</tr>
</thead>
</table>
- I have confidence in my school life.  
- It is good to interact with school members.  
- I get along well with others at school. | 4               | .810              |
| Major Satisfaction          | • [12] • [22] • [37]              | - Studying major subjects is fun.  
- Some of the major subjects are interesting.  
- Department major classes are helpful to me.  
- I am proud of my department to others. | 4               | .854              |
- I usually make a plan before starting my studies and study accordingly.  
- Even though it takes a lot of time, subjects that make you think deeply are more interesting.  
- I can concentrate well even in class time that I don’t like. | 4               | .877              |
| School loyalty              | • [40] • [41]                    | - I intend to resign in the future. *  
- I am willing to join in the future. *  
- I am willing to do a half or retake in the future. *  
- I am proud and proud of my department.  
- I would like to recommend to the people of the state to go to our school. | 5               | .844              |

*School loyalty is reverse coding

AVE can be obtained through standardized factor loads and error variances, and if a value of 0.5 or more is confirmed, it is judged that there is concentration validity. AVE can be calculated using the standardized coefficient of the measured variable and the value of the error term of the measured variable. As a result of the analysis, it was judged that there was convergent validity as the AVE values for all measured variables were in the range of 0.5 or more.

Structural Model Verification

[Table 7] shows the results of verifying the fit of the structural model using the maximum likelihood estimation method (ML) to investigate the structural relationship between the variables assumed to achieve the purpose of this study. The index for evaluating the fitness of the measurement model is divided into an absolute fit index, an incremental fit index, and a simple fit index. Since there is no selection criterion or an absolute single index, we presented the results in consideration of the research purpose. Analysis result = 88.793, df=57, CFI=.982, GFI=.954, NFI=.951, TLI=.975, RMSEA=.045, RMR=.042. Based on this analysis, the model of this study fits the data well and is a
Table 6
Confirmatory Factor Analysis (CFA)

<table>
<thead>
<tr>
<th>Latent Variable</th>
<th>Metric</th>
<th>B</th>
<th>S. E</th>
<th>β</th>
<th>CR</th>
<th>AVE</th>
<th>Concept reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction with college life</td>
<td>SC1</td>
<td>1.000</td>
<td>-</td>
<td>.829</td>
<td>-</td>
<td>.801</td>
<td>.882</td>
</tr>
<tr>
<td></td>
<td>SC2</td>
<td>1.180</td>
<td>.820</td>
<td>.828</td>
<td>14.933**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SC3</td>
<td>1.229</td>
<td>.832</td>
<td>.850</td>
<td>15.208**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SC4</td>
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<td>.824</td>
<td>.814</td>
<td>15.209**</td>
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<td></td>
<td>MS2</td>
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<td>.854</td>
<td>10.571**</td>
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<td></td>
<td>MS3</td>
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<td>.736</td>
<td>.843</td>
<td>13.332**</td>
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<td></td>
<td>MS4</td>
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<td>.853</td>
<td>.750</td>
<td>15.563**</td>
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<td>-</td>
<td>.768</td>
<td>-</td>
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<td>.869</td>
<td>14.892**</td>
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<td>.724</td>
<td>.809</td>
<td>12.108**</td>
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<td>School loyalty</td>
<td>SL1</td>
<td>1.000</td>
<td>-</td>
<td>.803</td>
<td>-</td>
<td>.792</td>
<td>.831</td>
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<td>SL2</td>
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<td>.842</td>
<td>.774</td>
<td>-13.126**</td>
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<td>.845</td>
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<td>.817</td>
<td>13.223**</td>
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p**<.01 p*<.05

Figure 1. CFA Model

Table 7
The structural model parameter estimation and significance verification results of this study were as presented in Table 8 and Figure 1 below, and the detailed analysis results were as follows: Satisfaction with school life affected major satisfaction, a mediating variable, at a statistically significant level ($\beta=0.467$, $p<0.01$). In addition, this study predicts academic self-efficacy, which is another mediator of school life satisfaction, at a statistically significant level ($\beta=0.097$, $P<0.01$), and school loyalty as a dependent variable is also statistically significant ($\beta=0.132$, $p<0.01$). In the case of major satisfaction as a mediating variable, we found that it has a statistically significant effect on academic self-efficacy ($\beta=0.289$, $p<0.01$) and school loyalty ($\beta=0.119$, $P<0.01$). However, academic self-efficacy ($\beta=0.067$, $p>0.01$) did not affect school loyalty.

### Table 8
Structural Equation Modeling

<table>
<thead>
<tr>
<th>Relational Variable</th>
<th>Standardized Factor ($\beta$)</th>
<th>Non-standardized Factor (B)</th>
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</thead>
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<tr>
<td></td>
<td>Total Effect</td>
<td>Direct Effect</td>
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<tr>
<td><strong>Satisfaction</strong></td>
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<td></td>
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<tr>
<td>with college life</td>
<td>$0.467^*$</td>
<td>$0.467^*$</td>
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<tr>
<td>Major Satisfaction</td>
<td>$0.232^*$</td>
<td>$0.097^*$</td>
</tr>
<tr>
<td>Academic self-efficacy</td>
<td>$0.172^*$</td>
<td>$0.132^*$</td>
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<tr>
<td>School loyalty</td>
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<td>$0.289^*$</td>
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<tr>
<td><strong>Academic self-efficacy</strong></td>
<td>$0.100^*$</td>
<td>$0.119^*$</td>
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<tr>
<td>School loyalty</td>
<td>$0.067$</td>
<td>$0.067$</td>
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</tbody>
</table>

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**Conclusion**

College is a time to prepare for future career choices, and college students perceive college life as an important time to determine their future lives because it is at that time when you decide what you want to be. In particular, in today's highly industrialized and rapidly changing society, with an uncertain future, students are faced with complex problems in which they must strive and achieve to find a suitable career path that can lead their future. In addition, universities should...
educate students to provide opportunities to develop their potential throughout their college life so that they can learn how to find a career path they want and set a specific life plan. Therefore, we conducted a study to prevent drop out from school through successful adaptation to school life and increased satisfaction with the affiliated university through improvement of various social and learning experiences of college students. The results are summarized as follows.

First, college life satisfaction had a significant effect on school loyalty. School life satisfaction is the intentional and unintentional activities experienced by faculty and students while interacting within the psychological and physical space of school, and can be defined as the degree of subjective feelings students feel about school life as a whole. School life satisfaction, one of the main achievements of positive behavior support in schools, is associated with the relationship with friends, life satisfaction, acquisition of learning skills, and overall happiness, which constitute the quality of life of students. It can be an appropriate measure to determine the effect. The degree of satisfaction with college life is an evaluation of the current school life in the college that one is affiliated to compared to the expectations of college life as set by an individual; thus, the satisfaction level has a profound effect on one’s future career path. Low satisfaction with overall college life leads to a decline in grades due to loss of interest in learning, and problems such as alienation from school, school maladjustment, dropout, and deprivation of potential opportunities for individuals. This phenomenon will appear as a result of lowering loyalty to the school, which eventually result to the student leaving the school. Therefore, universities should strive to make improvements such as developing various teaching and learning methods and improving academic administration services, open various communication channels with school members, and improve organic relationships with students (Doménech-Betoret, Abellán-Roselló et al., 2017).

Second, major satisfaction had a significant effect on school loyalty. The degree of satisfaction of a college student's major is an important factor that determines not only college life, but also the future career direction and ultimate career for the major depending on the choice of the individual (Holland, 1997). Factors that affect major satisfaction include gender, grade, and major type that correspond to individual characteristics. Of these, the degree to which a major match one's aptitude and interest affects major satisfaction throughout college life, and the basic attitude toward the major is different between students who select a major based on test scores and students who choose a major related to their aptitude and interest. The higher the degree of agreement between major and interest, the higher the degree of satisfaction with the major and the positive effect on department satisfaction and department adaptation. Another variable related to major satisfaction is students' intrinsic learning motivation, which refers to a high level of motivation to learn in order to obtain interest in learning itself or enjoyment or satisfaction accompanying learning performance without any extrinsic rewards. This can be seen as having a positive effect on school loyalty as they have high expectations for their own academic ability and thus their adaptability to school life (K.-N. Kim & Kang, 2020).

It is a complex concept that leads to defining factors, such as intimacy or psychological attachment to the department offering the major. The higher the degree of satisfaction with the major, the better the adaptability to school life, and it can be predicted that it will have a positive effect on one’s career after graduation (H. Lee & Park, 2010). In addition, after graduation, alumni recommend their alma mater to prospective students or participate in alumni associations, and will show a positive attitude in maintaining a friendly relationship with the school continuously through donations, etc. This attitude naturally shows as a result of increased interest and loyalty to the school.

Third, academic self-efficacy did not significantly affect school loyalty. Academic self-efficacy, a significant factor that influences academic achievement, is a judgment on one's ability to organize and implement actions necessary for the performance of academic tasks. Since students with high academic self-efficacy are strong, they are less affected by satisfaction with the instructor or knowledge of their major, and they learn to acquire more by themselves (Bandura, 1993; K. T. Lee, 2010). It is a subjective judgment accompanied by an individual's expectations and predictions about the ability to appropriately perform the ability or activity required to achieve the goal one wants to achieve. Various past success or failure experiences related to the individual's performance When taking on a task, it allows you to predict to what extent you will be effective in performing the task, and it has a positive effect on academic achievement. In other words, academic self-efficacy affects class concentration and participation, interest and value in subject matter, and perception of task performance (H.-Y. Han & Park, 2020).
Therefore, the higher the academic self-efficacy, the more likely the students are to choose a
tougher assignment or subject in the academic context, and to seek another university or
major in order to challenge more possibilities of success. On the contrary, students with low
academic self-efficacy will lose their interest in school life and related majors, resulting in lowered
motivation, which in turn leads to a high probability of dropping out; thus, their loyalty to the school
will naturally decline.

Through the above results, this study was significant because: The period as a college student
involves a preparatory process for producing an empowered member of society, and it is not only
a period to pursue academic knowledge, but also improve self-development and quality of life.
In this study, students' satisfaction with college life, major satisfaction, and academic self-efficacy
were selected as the factors affecting the relationship between school and the students currently
in colleges. We also analyzed relationship with school loyalty. In future studies, various factors
should be considered to prevent college students from dropping out and continuous research is
needed to achieve a successful school life.

References

Yang, J. H and Seo, J. T. (2021) Analysis of Factors Affecting College Students' School Loyalty, Focusing on...


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