Abstract

**Purpose:** This study aims to investigate the relationship between self-efficacy and career attitude maturity in career decision-making of educational service quality developed to improve the quality of education in the Department of Aviation Service and strengthen competitiveness in the department. It is insufficient research to apply educational service quality considering the characteristics of the Department of Airline Service, and it is expected that this study will be used as basic data to help efficient department operation and establish strategies for fierce entrance exams.

**Method:** For empirical analysis, a total of 231 responses were collected from students enrolled in the Department of Aviation Services at two-year and four-year universities located in Korea from September 6 to September 14, 2021, of which 221 were used for empirical analysis, excluding 10 unfaithful responses. In the empirical analysis, frequency analysis, factor analysis of measurement variables, reliability, and validity were investigated through SPSS 21.0.

**Results:** It was confirmed that the reputation factor, a sub-factor of educational service quality, is an important factor in all sub-factors of career decision-making self-efficacy. In addition, it was confirmed that self-evaluation, a sub-factor of career decision-making self-efficacy, is an important factor in career attitude maturity. It was shown that the employment support factors of education service quality were all important factors in the determination, purpose, certainty, and independence of career attitude maturity.

**Conclusion:** Through the results of this study, it was confirmed that aviation service department education service quality had a significant influence on career decision-making self-efficacy and career attitude maturity. To increase college students’ self-efficacy and career attitude maturity in career decision-making, it is necessary to accurately grasp the importance perceived by college students, increase the leading performance of aviation service majors, and actively engage in career preparation behavior. The result of this study suggests how the educational service quality in the airline service department currently recognized by students is related to career decision-making self-efficacy and career attitude maturity and suggests improvement measures for the development of the department.

**Keywords** Airline Service, Educational Service Quality, Career Decision-Making Self-Efficacy, Career Attitude Maturity, Department of Airline Service Major

1. Introduction

Before the COVID-19 crisis, according to a press release from the Ministry of Land, Infrastructure, and Transport in 2019, Korea’s air transport industry reached a record high of 117.53 million in 2018, up 7.5% from the previous year, and as of 2019, it has grown to the sixth-largest in the world in passenger and cargo transportation. In addition, the increase in air passengers is expected to continue in 2019 through various positive factors such as the introduction of a 52-hour workweek, changes in consumption patterns, an increase in solo travelers, and the expansion of medium-haul routes of LCC [1][2][3]. However, due to the unprecedented crisis of the spread of COVID-19, it is facing a serious
crisis due to a sharp drop in air demand, suspension of some routes by airlines, and restrictions on entry to prevent the spread of infectious diseases. Most students in aviation service-related departments want to get a job in the aviation industry after deciding their careers in advance compared to students majoring in other departments, however, compared to other occupations, competition for employment is fierce, and even now, the aviation industry around the world has almost no recruitment of aviation cabin crew due to the pandemic of COVID-19[4].

Recently, due to the economic downturn and low growth in Korea, the youth unemployment rate is higher than the overall average unemployment rate, and employment and unemployment problems have become serious social problems. As such, college students have a great influence on college major choices due to serious employment difficulties[5]. In addition, Korean universities are experiencing greater difficulties due to the reduction of the number of university admissions and structural reform of universities due to the decrease in the school-age population[6]. Therefore, universities need to more actively cope with students' career problems, improve the quality of educational services for college students, and provide educational services that can lead them to decide and prepare for career decisions[7]. Accordingly, it is effective by improving the quality of education in the department of airline services. To improve the quality of educational services in the Department of Aviation Services, many scholars began to study with interest in educational service quality[8][9][10][11].

It was confirmed that the provision of educational service quality has a positive value by verifying the effect on self-efficacy in career decisions according to the educational service quality of college students[5][12]. In addition, employment and career choice should make rational decisions on their own by comprehensively considering an accurate understanding of themselves and an understanding of the world of work. It was said that the quality of educational services provided by universities had a significant effect on their occupational consciousness and career maturity[13]. However, most of the preceding studies used the dimensions of SERVQUAL[14], a general service quality measurement model, as a measurement for education service quality applied. In particular, the department of airline service needs to understand the characteristics of educational institutions and derive constituent factors of appropriate educational service quality through this. Since then, it has begun to argue that appropriate measurement tools should be developed that reflect the characteristics of the department of airline service major[15]. Therefore, this study aims to investigate the relationship between career decision-making self-efficacy and career attitude maturity through the measurement model of educational service quality in the department of airline service majors.

2. Theoretical Background

2.1. Understanding of airline service and educational service quality

The Department of Aviation Services operates various curriculums to improve personality, manners, foreign language skills, and communication skills to advance into aviation services and various service fields. In addition, the Department of Airline Service is a department that is highly interested in many students depending on the positive social perception of airline cabin crew and the professional characteristics of having higher salaries and welfare benefits than other occupations[16].

Today, it is time for constant research and efforts to improve the quality of university education services because of intensified competition, changes in the educational environment, diversity of student tendencies, and high quality of educational services are required[17]. Therefore, to improve the quality of education in the aviation service department and increase the competitiveness of the department, it is important to provide appropriate educational services by measuring the exact quality of education service[15]. Educational service quality refers to all activities that allow educational service providers to realize students' mental and material satisfaction by providing educational services to students who are consumers to achieve educational goals[18][19]. However, many studies related to university education service quality have still been studied using the composition dimension of...
SERVQUAL[10][20], a measurement model for general service quality, and the composition dimension of HEdPERF[9][11][21]. After that, the factors of educational service quality in the Department of Aviation Services were composed of industry-academic cooperation, global education, department operation, and student guidance, educational facilities, and curriculum[10][22]. Therefore, it was restructured based on the measurement factors of the existing educational service quality measurement model, suggesting that the composition of factors reflecting the characteristics of the aviation service department was insufficient.

2.2. Relationship between educational service quality, career decision-making self-efficacy, and career attitude maturity

Universities provide an appropriate education for college students and respond to the current crisis in the educational environment. To do so, some universities are receiving ISO certification and service quality certification to improve the operation of various educational services and the level of education service provision[5]. By providing educational facilities and environments suitable for majors and careers, college students have confidence in their majors, that is, career decision-making self-efficacy, and provide educational services to self-directed career decisions and prepare for employment accordingly[23]. This emphasizes that the quality of university education services has a great influence on college students' career decisions. In this way, career decision-making self-efficacy means that it occupies a large proportion in developing an individual's career and career, and can be said to be a belief in an individual's ability to successfully perform tasks related to decision-making[24]. In addition, college students' confidence in their career decisions has a positive value in providing educational service quality, and these positive factors play an important role in inducing self-confidence, resilience, and optimism, and eventually affect positive behavioral changes[25]. Self-efficacy, a positive psychological factor in trying to find the cause of the problem, helps overcome the problem. Successful completion of a task in a given task to an individual is the best way to have self-efficacy, an important element of positive psychology[26].

Career attitude maturity can be said to be the degree of individual attitude, ability, and preparation to closely explore one's career path and make rational plans based on self-understanding, work, and occupational world understanding[27]. Career attitude maturity can be said to be a tendency to prepare for a career based on the understanding of their career and professional world when exploring and deciding an individual's career path[28]. Therefore, understanding learners' career attitude maturity with their careers is important in setting future career directions.

At this time, many studies have been conducted on self-efficacy as a variable influencing career attitude maturity. This suggests that the higher the self-efficacy, the higher the firmness and determination of the career path, and the higher the career decision, so it is necessary to guide them to have a positive self-efficacy[29]. If the level of education service quality is high or satisfaction with education is high, it will play an important role in determining the career consciousness of trainees, and active career exploration activities or positive career attitudes will have a positive effect on individual performance and corporate performance[30].

**Hypothesis 1.** Educational service quality will have a significantly positive(+) effect on career decision-making self-efficacy.

**Hypothesis 2.** Career decision-making self-efficacy will have a significantly positive(+) effect on career attitude maturity.

**Hypothesis 3.** Education service quality will have a significantly positive(+) effect on career attitude maturity.
3. Research Design

3.1. Research model

The research model is shown in <Figure 1> below.

Figure 1. Research model.

3.2. Data analysis method

For empirical analysis, a total of 231 responses were collected from students enrolled in the Department of Aviation Services at two-year and four-year universities located in Korea from September 6 to September 14, 2021, of which 221 were used for empirical analysis, excluding 10 unfaithful responses. In the empirical analysis, frequency analysis, factor analysis of measurement variables, reliability, and validity were investigated through SPSS 21.0. In addition, correlation analysis was performed to find out the correlation between variables, and linear regression analysis was performed to verify the hypothesis.

3.3. Measurement tools

Educational service quality was modified to suit the characteristics of this study by referring to the measurement tools developed as an educational service quality tool in the Department of Aviation Service[15]. It consisted of a total of 32 questions and 7 factors (professor, education, department management, employment support, reputation, environment, and global support).

Career decision-making self-efficacy is measured on a 5-point Likert scale with a total of 19 questions. The five sub-factors were configured to measure the degree of individual confidence that the tasks required for career decision can be completed by self-appraisal, occupational information, goal selection, planning, and problem-solving[31][32].

Career attitude maturity consisted of a total of 23 questions and 5 factors (preparation, confidence, independence, goal orientation, and decisiveness)[26][33]. The measurement of each question was made up of a 1-point Likert 5-point scale of 'not at all' and a 5-point 'very much'.

4. Result of Research

4.1. General characteristics of respondents

As a result of frequency analysis to find out the general characteristics of respondents, 43 males (19.5%) and 178 females (80.5%), and the school type was 194 students (87.8%) at four-year universities and 27 students (12.2%) at two-year colleges. In terms of grades, 68 first graders (30.8%), 66
second graders(29.9%), 35 third graders(15.8%), and 52 fourth graders(23.5%). The location of the
school was 10 in Gangwon-do(45.7%), 72 in Chungcheong-do(32.6%), 31 in Seoul and Gyeonggi-
do(14.0%), 16 in Jeolla-do(7.2%), and 1 in Gyeongsang-do(0.5%), followed by 180(81.4%) in self-will,
31(14.0%) in neighboring people’s recommendation, and 5(2.3%) online.

4.2. Validation of the validity and reliability of measurement tools

As a result of verifying the validity and reliability of educational service quality, 4 questions were
removed, 7 factors were derived, and the total variance was 75.537%. As each sub-factor, factor 1(14.223%) was named ‘professor’, factor 2(13.015%) was named ‘education’, factor 3(11.812%) was named ‘department management’, factor 4(10.435%) was ‘employment support’, factor 5(9.166%) was named ‘reputation’, factor 6(8.977%) was named ‘environment’, and factor 7(7.906%) was named as ‘global support’. The factor loading value of the seven factors was 0.40 or more, and the validity was verified, and the reliability was 0.60 or more.

As a result of verifying the validity and reliability of career decision-making self-efficacy, five factors were derived, and the total variance was 82.350%. As each sub-factor, factor 1(19.365%) was named ‘self-appraisal’, factor 2(16.657%) was named ‘occupational information’, factor 3(15.722%) was named ‘occupational information’, factor 4(15.660%) was named ‘planning’, and factor 5(14.946%) was named ‘goal selection’. The factor loading value of the five factors was 0.40 or more, and the validity was verified, and the reliability was 0.60 or more.

As a result of verifying the validity and reliability of career attitude maturity, one question was re-
moved and five factors were derived, and the total variance was 79.010%. As each sub-factor, factor 1(18.709%) was named ‘preparation’, factor 2(17.454%) was named ‘confidence’, factor 3(14.831%) was named ‘independence’, factor 4(14.559%) was named ‘goal orientation’, and factor 5(13.458%) was named ‘decisiveness’. The factor loading value of the five factors was 0.40 or more, and the validity was verified, and the reliability was 0.60 or more.

4.3. Correlation

The Pearson’s Correlation Analysis was conducted to understand the relationship between educa-
tional service quality, career decision-making self-efficacy, and career attitude maturity. The analysis results are shown in <Table 1> below. As a result of the analysis, it was found that there was a statistically significant positive(+) correlation between all variables.

<table>
<thead>
<tr>
<th>Variable</th>
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<td>CDMSE</td>
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</tbody>
</table>

Table 1. Correlation analysis.
Among career decision-making self-efficacy, it was found that education, environment, reputation, and professor for each sub-factor of educational service quality are important factors in occupational information. Therefore, it can be seen that education, environment, reputation, and professor for each sub-factor of educational service quality are important factors in goal selection.

Among career decision-making self-efficacy, it was found that global support, education, reputation, and professor for each sub-factor of educational service quality are important factors in planning. Therefore, it can be seen that global support, education, reputation, and professor for each sub-factor of educational service quality are important factors in planning.

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4.4. Hypothesis test

The results of analyzing Hypothesis 1 that educational service quality will have a significantly positive(+) effect on career decision-making self-efficacy. First, it was found that it had 48.9% explanatory power in predicting occupational information among career decision-making self-efficacy, and the regression equation was statistically significant(F=29.067, p<.001). For each independent variable, reputation(β=.248, p<.001), employment support(β=.220, p<.01), department management(β=.196, p<.01), and global support(β=.158, p<.05) were found to have a significantly positive(+) effect on occupational information. Therefore, it can be seen that reputation, employment support, department management, and global support for each sub-factor of educational service quality are important factors in occupational information.

Among career decision-making self-efficacy, it was found to have 37.5% explanatory power in predicting goal selection, and the regression equation was found to be statistically significant(F=18.233, p<.001). For each independent variable, education(β=.294, p<.001), environment(β=.203, p<.01), reputation(β=.200, p<.01), and department management(β=.173, p<.05) were found to have a significantly positive(+) effect on goal selection. Therefore, it can be seen that education, environment, reputation, and department management for each sub-factor of educational service quality are important factors in goal selection.

Among career decision-making self-efficacy, it was found to have 38.9% explanatory power in predicting planning, and regression equations were found to be statistically significant(F=19.372, p<.001). For each independent variable, global support(β=.236, p<.01), education(β=.201, p<.05), reputation(β=.191, p<.05), professor(β=.156, p<.05) were found to have a significantly positive(+) effect on planning. Therefore, it can be seen that global support, education, reputation, and professor for each sub-factor of educational service quality are important factors in planning.

Among career decision-making self-efficacy, it was found to have 28.9% explanatory power in predicting problem-solving, and regression equations were found to be statistically significant(F=12.364, p<.001). For each independent variable, it was found that department management(β=.244, p<.01), employment support(β=.197, p<.05), reputation(β=.186, p<.05) were found to have a significantly
positive (+) effect on problem-solving. Therefore, it can be seen that department management, employment support, and reputation for each sub-factor of educational service quality are important factors in problem-solving.

Among career decision-making self-efficacy, it was found to have 37.2% explanatory power in predicting self-appraisal, and the regression equation was found to be statistically significant (F=18.047, p<.001). For each independent variable, it was found that reputation (β =.314, p<.01), department management (β =.216, p<.01), employment support (β =.191, p<.05), professor (β =.187, p<.01) were found to have a significantly positive (+) effect on self-appraisal. Therefore, it can be seen that reputation, department management, employment support, and professor for each sub-factor of educational service quality are important factors in self-appraisal.

The results of analyzing Hypothesis 2 that career decision-making self-efficacy will have a significantly positive (+) effect on career attitude maturity. First, it was found that it had 46.5% explanatory power in predicting decisiveness among career attitude maturity, and the regression equation was statistically significant (F=37.429, p<.001). For each independent variable, it was found that self-appraisal (β =.392, p<.001), planning (β =.228, p<.01), goal selection (β =.152, p<.05) were found to have a significantly positive (+) effect on decisiveness. Therefore, it can be seen that self-appraisal, planning, and goal selection for each sub-factor of career decision-making self-efficacy are important factors. Among career attitude maturity, it was found to have 26.7% explanatory power in predicting preparation, and the regression equation was found to be statistically significant (F=15.681, p<.001). For each independent variable, it was found that occupational information (β =.173, p<.05), planning (β =.163, p<.05), self-appraisal (β =.158, p<.05) were found that had a significantly positive (+) effect on goal orientation. Therefore, in terms of goal orientation, it can be seen that occupational information, planning, and self-appraisal for each sub-factor of career decision-making self-efficacy are important factors.

Among career attitude maturity, 51.6% of the explanatory power was found to be statistically significant in predicting confidence, and the regression equation was found to be statistically significant (F=45.860, p<.001). For each independent variable, it was found that self-appraisal (β =.379, p<.001), occupational information (β =.277, p<.001), planning (β =.180, p<.01) were found to have a significantly positive (+) effect on confidence. Therefore, in terms of confidence, it can be seen that self-appraisal, occupational information, and planning for each sub-factor of career decision-making self-efficacy are important factors.

Among career attitude maturity, it was found to have 29.5% explanatory power in predicting preparation, and the regression equation was found to be statistically significant (F=18.018, p<.001). For each independent variable, it was found that planning (β =.255, p<.01), goal selection (β =.174, p<.05), self-appraisal (β =.165, p<.05) were found to have a significantly positive (+) effect on preparation. Therefore, it can be seen that planning, goal selection, and self-appraisal for each sub-factor of career decision-making self-efficacy are important factors in preparation.

Among career attitude maturity, it was found to have 23.8% explanatory power in predicting independence, and the regression equation was found to be statistically significant (F=13.464, p<.001). For each independent variable, it was found that goal selection (β =.293, p<.001), occupational information (β =.213, p<.05), self-appraisal (β =.156, p<.05) were found to have a significantly positive (+) effect on independence. Therefore, in terms of independence, it can be seen that goal selection, occupational information, and self-appraisal for each sub-factor of career decision-making self-efficacy are important factors.

The results of analyzing Hypothesis 3 that educational service quality will have a significantly positive (+) effect on career attitude maturity. First, it was found that it had 34.6% explanatory power in predicting crystallinity among career attitude maturity, and the regression equation was statistically
significant\( (F=16.112, \ p<.001) \). For each independent variable, it was found that global support\( (\beta=.285, \ p<.001) \), reputation\( (\beta=.184, \ p<.05) \), professor\( (\beta=.172, \ p<.05) \), employment support\( (\beta=.164, \ p<.05) \) were found to have a significantly positive\((+)\) effect on decisiveness. Therefore, in terms of decisiveness, it can be seen that global support, reputation, professor, and employment support for each sub-factor of educational service quality are important factors.

Among career attitude maturity, it was found to have an explanatory power of 40.0\% in predicting goal orientation, and the regression equation was found to be statistically significant\( (F=20.285, \ p<.001) \). For each independent variable, it was found that education\( (\beta=.251, \ p<.001) \), reputation\( (\beta=.250, \ p<.01) \), employment support\( (\beta=.189, \ p<.05) \) were found to have a significantly positive\((+)\) effect on goal orientation. Therefore, in terms of goal orientation, it can be seen that education, reputation, and employment support for each sub-factor of educational service quality are important factors.

Among career attitude maturity, it was found to have 38.6\% explanatory power in predicting confidence, and the regression equation was found to be statistically significant\( (F=19.165, \ p<.001) \). For each independent variable, it was found that professor\( (\beta=.188, \ p<.01) \), department operation\( (\beta=.188, \ p<.05) \), employment support\( (\beta=.147, \ p<.05) \) were found to have a significantly positive\((+)\) effect on confidence. Therefore, in terms of confidence, it can be seen that professor, department management, employment support, and reputation for each sub-factor of educational service quality are important factors.

Among career attitude maturity, it was found to have 24.7\% explanatory power in predicting preparation, and the regression equation was found to be statistically significant\( (F=9.965, \ p<.001) \). For each independent variable, it was found that department management\( (\beta=.217, \ p<.05) \), environment\( (\beta=.214, \ p<.01) \), professor\( (\beta=.196, \ p<.05) \) were found to have a significantly positive\((+)\) effect on preparation. Therefore, in terms of preparation, it can be seen that department management, environment, and professor for each sub-factor of educational service quality are important factors.

Among career attitude maturity, it was found to have 30.9\% explanatory power in predicting independence, and the regression equation was found to be statistically significant\( (F=13.601, \ p<.001) \). For each independent variable, it was found that employment support\( (\beta=.236, \ p<.01) \), education\( (\beta=.229, \ p<.01) \), environment\( (\beta=.180, \ p<.05) \) were to have a significantly positive\((+)\) effect on independence. Therefore, in terms of independence, it can be seen that employment support, education, and environment for each sub-factor of educational service quality are important factors.

5. Conclusion

Over the past decades, the Department of Aviation Services has achieved development and quantitative growth to train aviation service experts. However, due to the still insufficient and systematic educational services and department management, students are increasingly anxious about their career decisions and lack the willingness to try to reach their goals\([15]\). Therefore, this study is meaningful in seeking improvement measures necessary for the development and growth of the department by investigating how the educational service quality of the Department of Aviation Services currently perceived by students is related to career decision-making self-efficacy and career attitude maturity. This study attempted to investigate the relationship between career decision-making self-efficacy and career attitude maturity for enrolled students in the department of airline service, and the results of the study are as follows.

First, it was found that reputation, employment support, department management, global support, and environment are important roles in career decision-making self-efficacy by sub-factors of
educational service quality. Next, it can be seen that education, environment, reputation, and department management for each sub-factor of educational service quality are important factors in goal selection. It can be seen that global support, education, reputation, and professor for each sub-factor of educational service quality are important factors in planning. It can be seen that department management, employment support, and reputation for each sub-factor of educational service quality are important factors in problem-solving. It can be seen that reputation, department management, employment support, and professor for each sub-factor of educational service quality are important factors.

In particular, it was confirmed that reputation such as crew recruitment status, excellent educational content, high entrance examination support rate, the importance of educational facilities, campus location conditions, and reputation of department professors was found to have an important psychological impact. In addition, global support, employment support, and department management were also important. Schools should make efforts to develop differentiated programs such as various language programs, understanding foreign cultures, and experiencing other cultures to establish laboratories specialized in airline service education and strengthen the global competitiveness of enrolled students.

Second, it can be seen that self-appraisal, planning, and goal selection for each sub-factor of career decision-making self-efficacy are important factors in decisiveness. It can be seen that collecting occupational information, planning, and self-appraisal for each sub-factor of career decision-making self-efficacy are important factors. In terms of confidence, it can be seen that self-appraisal, occupational information, and planning for each sub-factor of career decision-making self-efficacy are important factors. It can be seen that planning, goal selection, and self-appraisal for each sub-factor of career decision-making self-efficacy are important factors in preparation. In terms of independence, it can be seen that goal selection, occupational information, and self-appraisal for each sub-factor of career decision-making self-efficacy are important factors. In particular, it was confirmed that the factor that has a common significant influence on all sub-factors of career attitude maturity was self-evaluation among the sub-factors of career decision-making self-efficacy. These results imply that to increase the maturity of students’ career attitudes, it is necessary to accurately recognize individual efforts, sacrifices, and priorities for desired jobs to achieve their career choices and goals. This suggests that it is possible to increase the confidence that college students can solve their problems by setting career goals, collecting necessary job information, and setting plans. Students should provide special lecture programs for experts in related occupations so that they can explore their aptitudes and understand their jobs accurately. In addition, through in-depth consultation with students and advisors, it is necessary to find a way to compensate for the shortcomings so that they can approach the goal.

Third, it can be seen that global support, reputation, professor, and employment support for each sub-factor of educational service quality are important factors in decisiveness. In terms of goal orientation, it can be seen that education, reputation, and employment support for each sub-factor of educational service quality are important factors. It can be seen that professor, department management, employment support, and reputation for each sub-factor of educational service quality are important factors in confidence. It can be seen that department operation factors, environmental factors, and professor factors for each sub-factor of educational service quality are important factors in preparation. It can be seen that employment support, education, and environment for each sub-factor of educational service quality are important factors in independence. These results confirmed that the employment support factor had the most influence among the various factors influencing career attitude maturity. It can be seen that providing interview guidance and feedback, revitalizing career guidance programs, and visiting and practicing domestic and foreign airlines are important factors in determining and actively preparing students' careers.

Since this study investigated the quality of educational services of aviation service students after
COVID-19, online learning and insufficient practical classes would have negatively affected satisfaction with class and school life[34]. Therefore, various studies should be continuously conducted to accurately recognize changes in students’ expectations and desires for educational service quality according to the times and circumstances that change rapidly in the future.

6. References

6.1. Journal articles


[23] Oh NR & Choi JL. The Influence of Service Quality of Education Student at Vocational Training Institute to Educational Satisfaction -Personality as a Moderating Varia-. *International of Tourism and Leisure Research*, 28(8), 221-240 (2016).


## 7. Appendix

### 7.1. Authors contribution

<table>
<thead>
<tr>
<th>Initial name</th>
<th>Contribution</th>
</tr>
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</table>
| **Lead Author** | Set of concepts ✔  
| | Design ✔ |
| | Getting results ✔ |
| | Analysis ✔ |
| | Make a significant contribution to collection ✔ |
| | Final approval of the paper ✔ |
| | Corresponding ✔ |
| | Play a decisive role in modification ✔ |
| | Significant contributions to concepts, designs, practices, analysis and interpretation of data ✔ |
| | Participants in Drafting and Revising Papers ✔ |
| | Someone who can explain all aspects of the paper ✔ |
| **Corresponding Author** | JK |

*Denotes corresponding author.*