A Study on Research Ethics and Education for Aviation Tourism Researchers

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Abstract

Purpose: Compared to the research results that have achieved remarkable growth, research ethics problems that threaten the quality of research. This issue appears not only in Korea but also in research societies worldwide where research competition has risen This study attempted to prepare improvements and institutional implications to establish research ethics in the research field. **Research Design, data and methodology:** This study examined total 26 prior studies to examine the current status of aviation tourism research ethics in the literature reviews for the finding section. The procedure of data obtaining included the elimination process to screen dissertation papers, conference papers, and internet sources. **Results:** Researchers must have an institutional mechanism to publish papers after completing education. Research ethics education programs suitable for aviation tourism research should be developed and detailed and clear guidelines for research ethics should be provided. This can prevent research irregularities. **Conclusions:** It is necessary to create a clear research ethics education for the spread of positive research ethics on aviation tourism researchers. Develop research ethics education and complete long-term compulsory education. Establish a research culture that requires compulsory completion of research education. It is necessary to support continuous education and learning through various research ethics methods.

Keywords : Research Ethics, Research Ethics Education, Aviation Tourism

JEL Classification Code: C35, M31, M39

1. Introduction

With the advent of a knowledge-based society, knowledge and technological innovation have emerged as key elements of national competitiveness and are recognized as key engines for sustainable growth. Thanks to active support at the national level, domestic R&D activities have led to achievements such as publishing papers in world-class journals or applying for international patents, raising their international status (Brown et al., 2023).

Compared to the research results that have achieved remarkable growth, research ethics problems that threaten the quality of research, such as plagiarism of papers, embezzlement of research funds, and disputes over author rights, are emerging (Braun & Guston, 2023).

This is an issue that appears not only in Korea but also in research societies worldwide where research competition has risen. As the ripple effect of research results on society gradually increases, there is also a growing demand to

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establish and comply with research ethics. Accordingly, various efforts are being made to establish research ethics, such as establishing research ethics regulations and guidelines, spreading research ethics culture, and implementing research ethics education (Kant 2022).

Research ethics education encompasses all principles and behavioral patterns to be observed while conducting research. It is required to acquire the required behavioral norms from research preparation to final presentation. It can be said to be a fundamental solution for establishing research ethics in the research field not only for current researchers but also for subsequent generations of academics. As such, not only the importance of research ethics education, but also for researchers themselves can only be recognized through creative and honest research. It is recognized that research ethics education is necessary due to academic development and a sense of responsibility as an intellectual who contributes to humanity (Abrizah et al, 2019).

In the early stages of research ethics education, one-time education such as seminars, special lectures, and workshops was conducted sporadically. As even such education was not continuously conducted, many people had doubts about the effectiveness of research ethics education. To improve this point, some research institutes and universities have developed their own education programs or guidebooks for regular research ethics education. However, as education was intensively conducted only in the fields of life science and medicine, the number of subjects receiving education was limited.

Therefore, this study attempted to prepare improvements and institutional implications to establish research ethics in the research field.

2. Literature Reviews

2.1. The Background of Research Ethics

The concept of research ethics was the starting point for raising ethical questions about living experiments conducted during World War II. The ethics of protecting human researchers were developed through the Nuremberg code and the Helsinki Declaration based on the historical experience of cruel living experiments conducted during the war. The Nuremberg Code was declared during the

International Military Tribunal for Germany's war leader, which was implemented by four countries: the United States, Britain, France, and the Soviet Union after World War II (Bell & Bryman, 2007).

During the World War, civilian concentrators, including prisoners of war, were subjected to biological tests such as poison gas tests, epidemic tests, and advanced tests at Ashwitz concentration camps, and military trials were conducted on 21 Nazi German doctors accused of dissecting human bodies (Bryman & Bell, 2019).

In this process, Nazi doctors argued that there were no guidelines related to biopsy. Therefore, the Nuremberg Military Court presented bioethics, recognized as the Hippocratic Oath, as the basis for punishment. The Nuremberg Code was established as a principle to be observed when involving subjects in the study (Bektasb & Tayauova, 2019).

The Nuremberg Code emphasizes that voluntary consent should not be made when the subjects participate, research that cannot obtain scientifically meaningful results, and that the risk of pain and injury should be minimized during research. This is of great significance as the first internationally accepted research ethics code. Since then, the codes of ethics and related laws at the individual national or international level are based on the Nuremberg Code (Bektasb & Tayauova, 2019).

Since the Nuremberg Code was established in a special situation of war, the international guidelines established by the World Medical Association specifically stated difficulties in applying it to general medical practice and bioethics in terms of the rights and participation procedures of the study subjects. The Helsinki Declaration, which was announced at the World Medical Congress in Helsinki in 1964, was a declaration that formalized bioethics and protection ethics for the study subjects and had a significant impact thereafter (Dennis et al., 2019).

In addition, the Helsinki Declaration presented the necessity and procedure of the Bioethics Committee in medical research, and became the starting point of the Institutional Review Board (IRB) today. Research ethics was born in the field of medical life. It became the basis of research ethics required for research in various fields of science and technology. In the 1980s in the United States, in the 1990s in advanced European countries including Northern Europe, and in the 2000s in Korea, research ethics emerged as an interest of the academic and general society.

It is common that this series of large-scale research irregularities was the trigger, and several factors worked in combination (Olatunji, 2021).

2.2. Current Status of Research Ethics in Aviation Tourism

The first is intensifying competition among researchers for research results across the academic world. Academic competition can be said to be a basic feature that constitutes the internal logic of the scientific system. Since then, competition among individual researchers has intensified in most research fields. Competition among institutions or countries is also intensifying (Sunandini, 2021).

This is because in the scientific community, praise is poured out only for the first discoveries or inventions, and intensive support is provided. This is evidenced by the precedent of the United States, where research activities were more important than education, and when competition began to intensify in the 1980s, research irregularities rapidly increased (Vainio, 2013).

It can be understood in the same context that controversy over research ethics occurred frequently in Korean society in the 2000s. In Korean society, academic competitiveness was emphasized as part of strengthening the national economic power in the knowledge-based era, and at the same time, efforts to quantitatively improve academic achievements were strengthened under the slogan of choice and concentration (Hwang et al., 2014). It is true that the creation of such an academic climate produced positive results such as overall improvement of research power and improvement of research conditions. However, on the other hand, unethical research practices or research irregularities are appearing as the increased burden of performance and competition stimulate unconscionable research motives (Hwang, 2022).

First, it became difficult to accurately grasp research results due to the reinforcement of performance evaluation of research activities. As the number of papers became important as a key performance evaluation index of scientists for career management and research funding, the technique of dividing research results was advanced. Publication in the form of a common book also increased rapidly. In addition, collaboration is becoming a prerequisite for research outcomes in all academic fields. The length of the publication list has come to be recognized as an index to gauge the status of a researcher. Accordingly, controversy over the priority of authors according to their research contribution and which scholars should be the co-authors of what rank spread (Kang & Hwang, 2021).

Second, the reinforcement of quantitative evaluation and these evaluation results are linked to research funding. The most preferred database for evaluating research achievements is the Science Citation Index (SCI), published by the Institute for Scientific Information (ISI). This index measures the influence of publications based on whether and how often the paper is cited, which is known as the best criterion for evaluating research performance in the field of science and technology in many countries, including Korea. In other words, the analysis of the number of SCI publishers today has become the most reliable indicator of achievement evaluation by enabling quantitative comparison of the influence of academic journal performance as well as individual, researcher, department, and national evaluations (Husband, 2020).

The journal impact index published by ISI is also regarded as a major measure of journal evaluation. The applicant's publishing industry plays an important role in evaluating research funding proposals, and the journal impact index provides quantified data for this. Evaluators mainly use it for achievement evaluation (Kim & Kim, 2014).

Third, it is a problem of evaluation procedures in which objectivity and fairness are difficult to secure in thesis evaluation. Evaluators must be guaranteed reliability to find out manipulation and modulation. There is an ethical obligation to make efforts for this. However, it is unlikely that cheating will be detected in a timely manner at the appropriate level. This is because evaluators cannot review the raw data and are given little time and financial room to reproduce analysis and observations (Kang & Hwang, 2023).

Fourth, there is a practice within the academic world where interests are intertwined. Since collectivism or nepotism tendencies remain strong, the collective binding of researchers around a closed apprenticeship has an influence on research activities. It seems to be promoting unhealthy research practices unrelated to personal will. This partially explains why the self-regulation and self-modification mechanisms required of researchers as a professional group in Korean society do not work properly when necessary. (Boeckstyns et al., 2020)

Fifth, the trend of increasing the size of the research

group, so-called big science, is a factor that weakens research ethics. This is remarkable in the academic fields and activities related to aviation tourism, where the absence of research activities over a specific period adversely affects future research (Plutzer, 2019).

3. The Importance of Research Ethics

Western countries have paid attention to research ethics and the integrity of research in the wake of a large-scale research cheating incident that occurred 20 years ago and have made efforts to prepare measures to improve it. At the beginning of the discussion, there were many cases of being passive or skeptical of institutional prescriptions because they violated the principles of freedom of research and self-regulation. After the research fraud incident, the government responsible for overseeing the use of research funds began to be actively involved in identifying research activities that did not meet the appropriate research standards (Gibson et al., 2013).

In this process, the term encompassing the research irregularities of scientists was changed from research fraud to research irregularities. The term research irregularities are an abbreviation for fabrication, modulation, and plagiarism, and has been established as the standard meaning of FFP (Novak, 2014).

In recent years, a research ethics culture that encourages responsible research (RCR) or good research practice (GRP) that can guarantee honesty, accuracy, efficiency, and objectivity beyond accusation and investigation of research irregularities is spreading. Among the various activities, such as preparing guidelines for establishing research ethics, establishing regulations, and implementing education, research ethics education is considered the most positive research ethics activity to give researchers the right direction and conduct good research (Sutton & Austin, 2015).

Research ethics education is a way to formalize and systematically acquire apprenticeship teaching that has been customary. Private education through mentoring from a supervisor or senior is insufficient to acquire clear research ethics knowledge that can be held responsible as a researcher. However, formal research ethics education allows to develop rational ethical judgment by systematically acquiring relevant knowledge and learning how to cope with conflict situations (Youn et al., 2015).

3.1. Necessity and Role of Research Ethics Advisory Agency Service

You should be aware that research cheating is a criminal act. Personal awareness that you do not cheat, whether intentionally or by mistake, should be raised. However, in the field of aviation tourism, there are few countermeasures for research ethics education, so it is not properly aware of the clear perception of research cheating. Therefore, it is necessary to open lectures, seminars, or online education on research ethics curriculum such as creativity education and research ethics education in aviation tourism-related academia (Anabo et al., 2019).

There is a need for an institutional mechanism that allows only researchers who have completed this course to publish research papers. Research ethics textbooks suitable for aviation tourism research should be developed and guidelines for research ethics education should be provided. Ethical consciousness and standards for plagiarism for research cheating should be clearly presented so that related researchers do not actively engage in research cheating (Kang & Hwang, 2021).

It is necessary to actively introduce a system that can search for plagiarism by aviation tourism researchers. From the perspective of the instructor, as a result, it should be extended to a system that allows researchers majoring in aviation tourism to determine whether they plagiarize their own papers (Jacob, 2019).

Finally, it is necessary to recognize how big a crime research cheating is and raise awareness to eradicate research cheating. This is because research cheating can be completely eradicated only when the consciousness of people who are the subjects of research cheating is fundamentally changed (Kang & Hwang, 2020).

Table 1: Final Used Resource

Section	Cited for Resource
Literature Reviews	Bell & Bryman (2007), Vainio (2013), Bryman & Bell (2019), Bektasb & Tayauova (2019), Dennis et al. (2019), Plutzer (2019), Boeckstyns et al. (2020), Husband (2020), Kang & Hwang (2021), Olatunji (2021), Sunandini (2021), Hwang (2022), Kang & Hwang (2023)
The Importance of Research Ethics	Gibson et al. (2013), Novak (2014), Sutton & Austin (2015), Youn et al. (2015), Anabo et al. (2019), Jacob (2019), Kang & Hwang (2020), Kang & Hwang (2021)

Source: Own

4. Conclusions and Suggestions

Research ethics education affects increasing ethical knowledge, ethical identity, ethical efficacy, ethical courage, and ethical significance. Ethical behavior is affected through the rise of basic knowledge related to ethics, ethical self-importance, ethical confidence, ethical motivation, and ethical importance. Various support measures need to be mobilized for the spread and settlement of effective research ethics education.
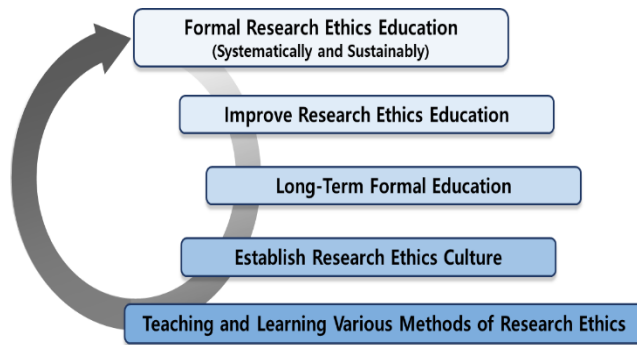

Figure1: Five Research Conclusions

First, formal research ethics education that is systematic and sustainable is needed. It is important to evoke research ethics-related knowledge acquired through long-term and consistent research ethics education so that it can be linked to ethical behavior in the research field. Measures are needed to increase research ethics knowledge and ethics through continuous research ethics education.

Ethics that is difficult to improve significantly with one-time education can be enhanced through continuous repetitive education. Ethical courage to make one's voice heard about what is ethically right is difficult to be expressed easily until an ethics culture is established, so long-term research.

Second, it is necessary to improve research ethics education. The aviation tourism field is very diverse. There is a limit to generalizing the content of research ethics education and applying it to all aviation tourism. It is necessary to develop various curriculums that reflect cases that consider the characteristics of detailed research fields. This is because if the content and case of education are not appropriate, the degree of educational commitment is significantly lowered, which is a factor that affects the effectiveness of education.

Third, in order for many researchers to become beneficiaries of research ethics education in the long run, it is necessary to institutionalize the nature of the mandatory completion system. Long-term formal education is needed to establish a research ethics culture that encourages honest research performance in the field of aviation tourism, which has made rapid development in recent years. The expansion of the mandatory completion system for research ethics education, which applies only to researchers participating in some national R&D projects, should be supported. Research ethics education should be expanded not only to current researchers but also to subsequent academic generations who are prospective researchers. It is necessary to establish a research ethics culture throughout the researcher society. Institutionalization should focus on preventing research ethics problems through improving research ethics awareness and cultivating knowledge rather than the nature of regulation and control. Research ethics education can be effectively spread within the range that does not hinder researchers' free research behavior. The spread of research ethics education through the system has a positive effect on ethical research at the individual level. The spread of ethics education is an important part because ethical behavior becomes a universal behavior at the organizational level and can contribute to the increase of organizational ethics.

Fourth, for continuous research ethics education, various methods of research ethics teaching and learning methods must be developed. In order to continuously receive research ethics education, it is necessary to develop not only e-learning education programs but also various education programs such as discussion, problem solving, practice, and case study types. This lowers educational fatigue due to monotonous forms of education. This is because, after acquiring basic knowledge through various educational programs, learning effects can be enhanced so that actual research conflict can be overcome and ethical behavior can be acted upon through discussion and problem solving between researchers.

In conclusion, it is necessary to institutionalize it as a compulsory completion system in order to spread research ethics education that positively affects researchers' ethical behavior. In order to maximize long-term participation in research ethics education and education effect, it is necessary to support the internalization of the curriculum and diversification of education types.

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