Documents for Final Evaluation
(Subject: Physical Activity & Sports)

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At the outset, we extend our sincerest appreciation for the supportive and very constructive comments we received from the world-renowned reviewers. The time and effort that went into the reviews are greatly appreciated, and we believe that our proposal is now significantly stronger as a result. We are excited by the development of our strategic planning and integrative theorization. The review commentary has been instrumental in helping us accomplish this. We have completed a major revision that incorporates the issues raised in the review, and we believe that it has strengthened the theoretical contribution of the proposal. This document outlines why and how our proposal meets the objectives and criteria of SNU 10-10 Project.

1. Growth potential

✔ Evaluations Criteria: Does the subject area proposed have the potential to grow into a world-class academic level?

✔ First of all, thank you so much for the positive and supportive evaluation of the department and proposal. Consistent with the reviewers’ trust in the growth potential of the sport-related area and our department, we are very excited to shape our future and grow into world-class sport-related academic program.

✔ Quantitative Growth Potential (QS Ranking)

✔ The readiness and the feasibility of reaching the top 10

The department’s growth potential in the QS World University Rankings is self-evident in the recent rankings. The gap from the top 10 is the narrowest for the department among all the areas and the programs in Seoul National University (SNU). Thus, it is reasonable to believe the department has the best chance to reach the top 10 QS ranking, which is the primary goal of this project. In addition, the department has experience of achieving the top 10 in the QS ranking in 2017 and 2018, which can be viewed as the most concrete and convincing evidence of its top 10 potential. The recent QS World University Rankings
reflects the department’s place among the top higher education institutions for sport-related subject. The department were ranked 7th best sport-related program in 2017, which is the highest rank ever attained by any department in SNU. Our department has held the highest rank in SNU in the QS ranking for the last three consecutive years (10th in 2018 and 12th in 2019). The ranking in 2020 was the 22nd (4th in SNU) but this was one time exception rather than the fundamental change. All in all, recent department’s record of close-to-top ten ranking justifies potential to reach the top 10 QS ranking and the selection of the department for the SNU 10-10 Project.

**Institutional strength of the Seoul National University**

Academic reputation of Seoul National University is much stronger than all the top 10 university by sport-related subject. This can be the crucial strategic advantage for the department and SNU because other areas and departments of SNU are facing much harsher competition against the programs in the more highly ranked universities than SNU. Blue ocean and red ocean analogy would be useful to appreciate the strategic advantage for the sport department. Sport-related area is in the blue ocean (uncontested, growing), where SNU is the dominant leader. Some areas are in the red ocean (overdeveloped, saturated), where SNU is one of those followers behind the top 10 Universities. SNU will have more success, fewer risks, and increased academic performance in a blue ocean area. Thus, as the reviewer 1 endorsed, the investment in the sport-related program will be a strategically wise decision.

**Growing research capability and productivity of the young faculty members**

The department has recently made generational transformation. The main objective of the transformation is to build top sport-related academic program in the world. The generational transformation was successful. Thanks to the active recruitment for the high quality researcher and subsequent replenishment of the department faculty (over one-third of new employees were recruited) so as to ensure that the new requirements on research are met, the share of the faculty who have published papers in journals indexed in the
Web of Science and Scopus databases has increased from 40 to 80%. In addition, the proportion of faculty who can deliver courses and publish in English has increased from 50% to 80%. Particularly, the most actively publishing faculty members are within their first 5 years of their career. Thus, those younger professors’ h-index, which is the research productivity measure of QS World University Rankings by Subject, will only increase by just the time passes. This natural improvement in research performance measure will have a significantly positive impact on QS ranking of the department because research impact component has the larger room to grow than the other criteria of academic and employer reputations that are already very highly rated.

**SNU Leaders’ moving beyond the old thinking of the areas and making strategic commitment**

We understand the difficulty and complexity of evaluating the potential of the proposals from widely disparate subject areas in a high quality, fair, and balanced way. We do believe the SNU leadership and review committee have done admirable job in such a challenging and stressful circumstance. We truly appreciate the time and effort.

To make the hard work from the SNU leadership and the review committee worthwhile, it would be important to discuss the division of the subject areas and the selection of the expert reviewers. We completely understand why three sub-division of the project were created. It is still necessary to note it would be near impossibility to categorize 38 subject areas into three most appropriate sub-divisions. Some subject areas might find a natural fit in one of those sub-divisions. Some subject areas might not be very fortunate as others. This misfit in classification decisions could have unintended consequences of the reviewer invitation and evaluation. The reviewers are the experts on the representative areas of the sub-division. It would be unfair expectation that those reviewers could be knowledgeable of all the subject areas in the broad sub-division. A reviewer inherently has more expertise on and preference to some subject areas than others. This systematic selection bias will be more likely to disadvantage the proposals from the unique or non-representative areas (e.g., sport-related subject), which is not adequately placed into one of the three general sub-divisions.
In addition, there still exists social and academic prejudice against the sport-related subject and the academic discipline. Both inside and outside the university communities, sport-related subject are not considered legitimate topics for serious and scientific research. This old stigmatization lingers and has some negative consequences including the devaluation of the quality of the research and expertise of the faculty and students.

Our fear had become reality when we witnessed the evaluation from the reviewer. We do not mean to complain about the expertise or intention of the reviewer. We would just like to bring selection committee’s attention to the two issues discussed above. This shocking review is a convincing evidence for our concern. The reviewer rated our proposal as “Poor” with no comment provided on any of evaluation criteria, not even a single word except “no”. This type of review tends to come from lack of expertise on sport-related subject and misunderstanding of the academic value of the subject area. Regardless of the intention and motivation, the quality of the review clearly does not meet the standard of any reasonable grant evaluation. The review is too unprofessional and inadequate to be used for the selection decision. It is not unreasonable to say the review unfairly hurt our standing in the first-round of the selection. We feel grateful for passing the first phase despite the predicament. It is our understanding that, in the most grant proposals, not to mention meaningful project like SNU 10-10 Project, this type of unprofessional review is disregarded and not counted in total scores for the further selection decision. All in all, we truly trust the integrity, commitment, and strategic competency, of the SNU leadership. Thank you so much.

**Qualitative Growth Potential**

**Future-oriented research areas and expertise of the faculty**

Technology has been distancing people from bodily experiences and physical interactions. Children no longer need to go to playground to have fun. So many children are addicted to their smartphones or to video gaming. Online community, which lacks the face-to-face and physical interaction, has been replacing the offline one. Technological development and intelligence explosion of artificial intelligence (AI) might even eliminate the necessity of physical presence and contact. However, we, humans have bodies. People cannot live
happily without bodily experience and face-to-face social interaction. Losing touch with the physical elements of life makes people feel disoriented, alienated, and irrelevant. This ironic discrepancy between functional necessity and the basic human needs make the platform and infrastructure for physical experiences and interaction with the environment all the more important. Our faculty is world-renowned and considered the trusted authority in the essential areas of physical activity and sport, addressing the gaps above.

**Strong global academic reputation in sport-related disciplines**

Our faculty, students, and alumni have been recognized nationally and internationally for its excellence in research, teaching, and service. The QS World University Rankings validate the department’s capability and potential to be the top higher education institution for sport-related subject.

**Future necessity and relevance in the world of increasing scarcity of bodily experience and physical interaction.**

Technological development and intelligence explosion of artificial intelligence (AI) quickly reduce the functional needs of physical presence and contact. For example, convenience of online education comes at the cost of the diminishing offline education. In the near future, physical attendance in the classroom might be no longer required for education. However, in order to flourish, people still need to ground themselves into the physical worlds. The gaps between decreasing physical lives and the basic human needs present the most critical opportunities for our department to improve the quality of life.

**Increasing social demand for sense of community and belonging**

Information technology and online social network contributed to building a global human community. Unfortunately, however, offline and intimate community has been disintegrated for the last decade and people feel lonelier and more alienated. Due to our evolutionary development, online communities cannot match the depth that offline
communities offer. People really need physical stages and platforms such as sport to reconnect themselves to others in the real world and share their physical experiences.

- **Paradigm shift in the meaning of human health and wellbeing**

  Health is no longer just the absence of disease. With twin revolutions in infotech and biotech, human might be able to conquer most devastating diseases including cancer in the not too distant future. Taking the disease out of equation, the health means achieving physical, spiritual, and emotional harmony. Therefore, sport and physical activity will play more important and powerful role for the health and wellbeing as the paradigm evolves.

- **Imperative for reducing exercise and health inequalities**

  Due to the societal changes discussed above, the exercise is no longer optional but rather a necessity for all human beings. Thus, growing gaps in the level of physical activity between the haves and have-nots should not be viewed as matter of personal choice. The physical activity should be considered as basic human right, which calls for immediate actions to narrow the inequalities in physical activity and sport participation. This societal imperative should provide the department with more opportunities to grow further through overcoming the challenges.
2. Implementation Plan

✅ Evaluations Criteria: Does the proposal have an effective and feasible plan?

✅ All the reviewers provided positive review on these criteria. We appreciate the generous evaluation. We have revised our action plan to include more specifics based on the reviewer 1’s comments. Moreover, following reviewer 4’s suggestion, we have provided the unifying theme for the three focal research areas of the proposal.

❖ For quantitative goal (QS Ranking)

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<th>Ranking Strategy Component</th>
<th>Strategic Action</th>
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| 1. Encourage researchers to publish in highly cited journals | • A programme of academic allowances for publications in high-ranking journal  
• Performance standard renovation  
• Incentive structure revision  
• Graduation policy review  
• International research engagement  
• SSCI Journal sponsored by department  
• Market-oriented research management  
• System |
| 2. Continue to make first-class appointment | • Replacement of retiring two faculty members with scholars publishing in published papers in journals indexed in the Web of Science and Scopus databases  
• Quality control through active hiring search committee  
• Fund for incentive attracting high quality researcher  
• Recruit graduate student with active research agenda and capability  
• Recruit of international faculty with Korean heritage |
| 3. Better promote its high impact research | • International research conference host  
• International research conference participation  
• Educational research participation |
| 4. Engage with the ranking agencies | • QS Intelligence Unit consulting  
• Review Areas  
• Academic Impact  
• Institutional Direction  
• Student Value  
• Externa Strategy |
For qualitative goal

The efficient and feasible implementation plan will enable us to expand and strengthen the various pillars of research and expertise of the department, including kinesiology & exercise science, sport management, sport pedagogy, and sport studies cluster. The success of the proposed research projects will promote active participation of more population in sports activities, leading to healthier and happier life of individuals and eventually to healthier society.

We also expect that the proposed research will enhance the scientific knowledge of human movement and contribute to filling the long-standing lack of the dialogue among social science, kinesiology, and engineering. This project will focus on three research themes that represent the areas of the department’s existing strength and emerging opportunities.

The proposed project will mainly focus on three research themes:

1. Sports medicine & physiology pillar pursues to understand the mechanism how the exercise mitigates mood disorder and to develop evidence-based antidepressant exercise programs.

2. Health promotion & sports participation pillar seeks to identify hurdles impeding participation in physical activities and to resolve the hurdles by effective policies.

3. Movement science & sports engineering pillar aims to quantify motor performance precisely and develop practical technologies to improve human motor function and promote sports participation.

We expect that this unique combination of the three distinct research areas, tied under the common theme of physical activities and sports, will not only enhance the scientific knowledge of human movement, but also contribute to filling the long-standing lack of the necessary dialogue among social science, kinesiology, and engineering.
Basic Exercise Science for Expanding Knowledge

Integrated Sports Research

Translational Research

Knowledge-based Innovation

Policy & Strategy Development for Sports Participation

(Sport Studies & Management)

Technology Development for Enhancing Sports

(Movement Science & Special Population research)

Social Inclusion

Multidisciplinary Sports Research for Healthier Society
3. Performance Goal

✔ Evaluations Criteria: Is the performance goal specific and appropriate?

✔ We appreciate the reviewers’ positive and constructive feedbacks for the proposal on these criteria. We agree with the comment from reviewer 1&4 to point out our goal is specific and appropriate but need a little more focus. Now, we have a better understanding of the purpose of SNU 10-10 Project thanks to comments and guidance from the reviewers and the SNU leadership. Therefore, we have revised the performance goal more in line with the goal and scope of the project. Now, we believe our performance goal is more specific and appropriate as a result.

The key performance goals of the department proposal for SNU 10-10 Project are to:

▶ Establish the reputation and credibility of the department as the world best academic program in the sport related field by becoming ranked in the top 3 programs in the QS World University Rankings in 2026.

▶ Improve the impact and value of faculty scholarship by
  • Increasing scholarly publications by 25% in the year 2026, and
  • Increase average h-index of the department faculty by 2 in the year 2026.

▶ Enhance and enable access to world-class infrastructure and resources by generating external funding from both public and private sources, aiming the total amount to $2.5million (40% increase from the past 5 years) for the next 5 years.

▶ Develop world-class research culture that recognizes, values and nurtures excellence, scholarship, creativity, enterprise and innovation.

▶ Strengthen the quality of graduate program and enhance research-training environment.
  • Increase credits received by students for research, project and innovation-based activities.
  • Increase percent total research credits received by students in core educational programs.

▶ Participate in and lead major collaborative events, professional networks, exhibitions and performances.
4. Performance Management

✔ Evaluations Criteria: Does the proposal present efficient and reasonable performance management schemes and performance indicators?

✔ All the reviewers are content with the performance management schemes and performance indicators of this proposal as it is. We have added a diagram for the better review in the final stage to visualize the performance management scheme.

Management Scheme

All the faculty members in the department will actively participate in this project. In addition, the progress of the proposed project will be monitored and managed by the Project Leadership Committee (PLC). The PLC will consist of Prof. Yukyoum Kim (Program Manager), Prof. Jooeun Ahn, Prof. Hyoyoul Moon, and Prof. Chung Gun Lee. The PLC will hold monthly meetings to check the actual progress in each field and compare the achievement with the evaluation criteria suggested above. PLC will also prioritize the items that the limited budget should be spent on. For example, regarding the budget for travel expenses, the students who will present their research in an international conference will have priority over the faculty. In addition to this internal evaluation and management plan, PLC will invite External Review Committee (ERC) again to receive objective feedback from esteemed scholars in the 3rd year of the project. Since the department has already invited ERC in November 2019, this planned external review will focus on the assessment of any improvement that the department will make during the 3 years of the proposed project.
**Performance Indicators**

**Research outcomes: 8 SCIE papers ranked as Q1 and 2 provisional patents.** Success of the proposed project requires synergy of interdisciplinary research subjects involving instrumentation, experiment with human subjects, motor-neuroscience, physiology, data analysis, and statistics. We aim to publish at least two SCIE journal papers which are ranked as Q1 (top 25%) in each of four distinct fields (Sports Management, Sports Participation, Physiology, and Sports Engineering) during the first three years. In addition, we aim to create at least two provisional patents by the 3rd year of the project.

**Training of students: Annual presentations of 2 Master’s and 8 Ph.D. students.** A large portion of the proposed budget needs to be assigned to the training of students in the various fields. During the first three years, the project will partly support 2 Master’s and 8 Ph. D. students annually. The students are also expected to develop their communication skills and present their research progress at least once per year in renowned international conferences.

**Contribution to society: One antidepressant exercise program.** The outcomes of the proposed project should go beyond academic achievements like presentations and papers; we are to contribute to making healthy society practically. Thus, based on what we will
find through the proposed research project, we will produce an antidepressant exercise program for the general public in the 3rd year of the project. The program will be provided in various forms like applications, booklets and videos.

**Reputation of the department: Academic Reputation and H-index of 88 and 75.** The average values of the Academic Reputation and H-index of the department over the last three years are 85.6 and 71.8, respectively. We aim to increase these indices to 88 and 75 by the 3rd year of the project. Out bound trips to leading universities and foreign research institutes will provide more opportunities to strengthen international cooperation and enhance the reputation of the department by showing the excellence of our studies and projects. We will also continue to build relationships with many institutes in developing countries that can implement our achievements.
5. Budget Plan

✔ Evaluations Criteria: Does the proposal present an adequate budget plan?

✔ The reviewers largely agree that the proposed budget plan is adequate. Sole comment about the budget can be easily addressed. Here, we attempt to explain why we allocated a significant portion of the budget to the leadership committee and how this portion can effectively contribute to the success of the proposed project.

The global networking related expenses including travel for international conferences and meetings are classified into the leadership committee item. Initially, the global networking related expenses were thought to be the primary use of the 10-10 Project grant and the largest portion of the budget were assigned to the travel for international conferences and meetings. Now, we have better understanding of the adequate use of the budget and have revised the budget plan accordingly.

One of the key components of the 10-10 initiative can be globalization, which requires the frequent global interaction as well as the competence to perform high quality research. The External Review Committee already completed the evaluation and supported the competence of the students and faculty members of our department last November, thus now we need to actively invest our time and efforts in spreading our outstanding research outcomes and communicating worldwide.

Specifically, we are planning to support the participation of 30 students and faculty members in the international conferences and meetings annually. Considering the limited budget, the leadership committee will distribute the travel grant based on the quality and importance of the conference and the position of the potential participants. E.g., priority will be given to the students (rather than faculty members) who present high quality research in prestigious conferences. In addition to supporting the travel for international conferences, we are planning to host international conferences ourselves and invite renowned scholars to expedite globalization of our department. The second largest portion of the budget for the leadership committee is assigned to hosting these events.
To summarize, we assigned the largest portion of the total budget to the project leadership committee category to facilitate the global networking of our department even further. Besides the progress in each of the itemized research project, the role of the headquarters, the leadership committee is critical to the success of the proposed multidisciplinary research project. Combined with the verified research competence of our department, supporting the students’ participation in international conferences and hosting international academic events will effectively contribute to building the top sport-related academic program in the world.