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Original Article

The Impact of the Emotional Responses of Korean Students Participating in School Sports

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Abstract

Background: Physical education in schools improves students' health, physical strength, and lifelong physical engagement. Therefore, participation must be encouraged. This study aimed to investigate the relationship between emotional responses and participation satisfaction, word-of-mouth (WOM) praise, and WOM activity in students participating in school sports. Few studies have considered WOM praise and activity separately. This study addresses this gap in the literature.

Methods: In 2023, a survey of total of 345 students in Gyeonggi-do, Korea, was conducted using convenience sampling. Data processing included factor analysis to verify validity and reliability, correlation analysis, confirmatory factor analysis, and structural equation modeling to test the hypotheses.

Results: The results confirmed a relationship between the emotional responses of students and satisfaction with participation. The emotional responses (ventilation [$P<0.001$], sense of dominance [$P<0.001$]) significantly affected participation satisfaction, and the latter had a possible causal relationship with WOM praise ($P<0.001$) and activity ($P<0.001$).

Conclusion: The emotional responses of school sports participants were related to participation satisfaction, WOM praise, and WOM activity. Participation satisfaction significantly affected WOM praise and WOM activity. Therefore, to contribute to students' lifelong health, school sports programs should be developed and implemented to induce positive emotional responses, ensure students' participation in school sports, and improve their future quality of life.

Keywords: Adolescents; Participation satisfaction; School; Sports; Word-of-mouth activity

Introduction

School physical education is mandatory for all grade levels to improve students' health, physical strength, and lifelong physical engagement. As a part of school life, it represents a certain level of daily physical activity for each student. Research is steadily progressing on the positive effects of physical education on some behavioral issues (e.g., tendencies toward inactivity), stress management, and the development of desirable social skills (1,2). Modern society can contribute to various problems (e.g., human alienation, an increase in adult diseases, environmental pollution, inactivity, and obesity), and people often seek fundamental activities when faced with harsh and

complex social conditions. In this context, the meaning and importance of school physical education at a young age are critical (3). Generally, by participating in school sports, students can focus on improving their quality of life, vitality, physical strength, and finding mental leisure and stability. Additionally, a student's experience with various school sports can lead to increased social development, which naturally helps improve social relationships. The experience of sports as part of school physical education can also lead to the enjoyment of leisure exercise, which is part of modern culture and society. Physical education in school has become a necessary means of achieving continuous physical health, psychological stability, and improved quality of life (4).

As students can become healthier through physical activity, school physical education plays a more critical role as a participatory sport than as a spectator sport. Thus, if physical education classes focus on participatory sports, students can improve physical strength and flexibility, psychological health, and prevent obesity (5). From a social perspective, participatory sports provide opportunities for students to learn and develop cooperation, leadership, and teamwork skills (5). Participatory sports can also help students: improve communication and coordination skills through collaboration with others; achieve personal growth, goal setting, motivation, and feelings of accomplishment by promoting effort and determination; develop by experiencing failure and victory; and learn how to maintain life balance. Through physical education classes, students can learn how to enjoy an active and healthy life outside of school and study (5,6). Despite the plethora of research showing the importance of students partaking in participatory sports, the dilemma lies in encouraging and ensuring student participation. This study aimed to better understand students' emotional responses to involvement in school physical education and offer basic data that can be used to improve the contribution of school physical education to lifelong physical health.

In this study, the concept of school physical education is considered as a part of a larger service industry, since participating students receive services from sports coaches and facilities. In light of this focus on the service industry, first, I considered the concept of emotions based on the notion of consumer emotions, which are essential in the service industry. Research shows that having knowledge of consumers' emotional responses is key to understanding consumption behavior, which is often a direct response to marketing stimuli (7). The term consumer emotion refers to emotions felt directly because of consumption, including the possession and use of a product or service after purchase (8). Emotions are complex states that involve the perceptions of an object or situation and the accompanying physiological reactions (8).

Second, satisfaction is considered in this research. Recent service marketing trends have shifted to a pursuit of maximal customer satisfaction rather than of selling volume (9). Various studies have examined consumers' perceptions of satisfaction (10). In traditional consumer research, it was thought that final purchases were made based on consumers' rational judgment and their satisfaction; however, in further research, it gradually became clear that consumers' emotional responses were a major factor. Accordingly, companies are making various efforts to stimulate consumer emotional responses while emphasizing consumer satisfaction (11). Satisfaction is generally measured using post-experience evaluation feedback to assess whether consumer expectations are met or exceeded. Satisfaction also increases the likelihood of repurchasing the object of the experience, and reflects one's positive attitude toward the object, which may lead to positive word-of-mouth (WOM) (12). Thus, satisfaction plays a vital role in consumer consumption, WOM, and loyalty (13).

Finally, this study considers the concept of WOM in the investigation. Harrison and Walker (14) defined positive WOM (WOM praise) as affecting favorable attitudes and behavioral intentions based on WOM information, and as a positive image of a service or product formed by a person after receiving WOM. These authors also defined WOM activity as the degree to which a

person wishes to pass on information to others or recommends or talks about the information gathered. The authors emphasized that WOM praise should be defined and treated differently from WOM activity (14). Although interest in the effect of WOM has increased in recent years, few studies have considered WOM praise and activity separately. My study contributes to the literature by adopting this separative approach for WOM in the context of school physical education.

Concerning school physical education, positive emotions may be formed by participating in school sports, which may lead to participation satisfaction. This study examined the relationships between emotional responses and participation satisfaction, WOM praise, and WOM activity in students in the context of school physical education. The hypotheses were as follows:

Hypothesis 1. Emotional responses to school sports participation influence participation satisfaction.

Hypothesis 2. School sports participation satisfaction influences WOM praise.

Hypothesis 3. School sports participation satisfaction influences WOM activity.

The findings offer novel insights for teachers and administrators responsible for developing physical education classes. Based on the results, further educational strategies can be developed for school physical education, which may then translate into improved lifelong health.

Materials and Methods

Participants

The students were enrolled in the study who participated in school sports and lived in a metropolitan area in Korea. Using convenience sampling, I surveyed 400 elementary, middle, high school, and college students in Gyeonggi-do, Korea in 2023. After explaining the purpose of the study, the questionnaires were distributed, and the students were asked to complete the surveys independently. In the study, 55 completed questionnaires were considered to have insincere responses through the first coding process and excluded from the study, and 345 questionnaires were selected as the final valid sample for data processing.

Informed consent was obtained from both the study participants and their guardians, and the study was approved by Dong Seoul University (2023-03), Gyeonggi-do, Korea. This study was conducted according to the principles outlined in the Declaration of Helsinki, and the general characteristics of the study participants are presented in Table 1.

Table 1: General participant characteristics

Variables		*Frequency*	*Percent*
Sex	Male	150	43.5
	Female	195	56.5
	Total	345	100.0
Age (yr)	Under 14	46	13.3
	14–16	86	24.9
	17–19	111	32.2
	Over 20	102	29.6
	Total	345	100.0

Instruments

All variable-related questions were rated on a five-point Likert scale, except for general participant characteristics. First, I modified and supplemented the scale used in Kim's (16) study to measure emotional responses. The emotional response sub-factors consisted of enjoyment, ventilation, and a sense of dominance, comprising 15 questions. Second, I measured participation satisfaction using four questions, modifying and sup-

plementing the scale (17). Third, in this study, WOM praise refers to a positive change in attitudes toward physical education after participation. This was measured using three questions (18), modified and supplemented for this study. Fourth, WOM activity refers to participants' willingness to convey their experiences to others, and was measured using three questions from the scale used by Chevalier and Mayzlin (15), modified and supplemented in this study. Ultimately, the questionnaire included 2 questions on personal information, 15 on emotional responses, 4 on participation satisfaction, 3 on WOM praise, and 3 on WOM activity.

For validity, only items with a factor loading of 0.50 or higher were selected through the orthogonal rotation method (varimax) during factor analysis. Emotional responses were classified into three factors: enjoyment, ventilation, and sense of dominance. The emotional response exploratory factor analysis results are shown in Table 2. Factor analysis classified participation satisfaction, WOM praise, and WOM activity into single concepts. Table 3 presents the results of the exploratory factor analysis for participation satisfaction, WOM praise, and WOM activity.

Table 2: Emotional response exploratory factor analysis results

Variable	*Factor 1*	*Factor 2*	*Factor 3*	*h2*
Enjoyment 2	0.845	0.252	0.186	0.769
Enjoyment 3	0.843	0.206	0.185	0.802
Enjoyment 1	0.821	0.224	0.261	0.688
Enjoyment 4	0.811	0.243	0.252	0.643
Enjoyment 5	0.808	0.180	0.258	0.679
Ventilation 2	0.114	0.879	0.128	0.717
Ventilation 1	0.167	0.828	0.234	0.590
Ventilation 3	0.234	0.770	0.202	0.753
Ventilation 5	0.301	0.718	0.270	0.796
Ventilation 4	0.323	0.696	0.232	0.792
Sense of dominance 4	0.203	0.236	0.836	0.812
Sense of dominance 3	0.249	0.174	0.813	0.787
Sense of dominance 1	0.292	0.216	0.765	0.779
Sense of dominance 2	0.241	0.418	0.597	0.752
Eigenvalue	3.946	3.605	2.808	
Variance (%)	28.185	25.749	20.056	
Cumulative (%)	28.185	53.749	73.990	

Table 3: Participation satisfaction, word-of-mouth praise, and word-of-mouth activity exploratory factor analysis results

Variables	*Factor 1*	*Factor 2*	*Factor 3*	*h2*
Participation satisfaction 3	0.846	0.250	0.227	0.793
Participation satisfaction 4	0.805	0.164	0.325	0.731
Participation satisfaction 1	0.753	0.410	0.241	0.829
Participation satisfaction 2	0.719	0.430	0.168	0.780
Word-of-mouth praise 1	0.346	0.827	0.253	0.852
Word-of-mouth praise 2	0.338	0.752	0.369	0.884
Word-of-mouth activity 2	0.321	0.184	0.865	0.868
Word-of-mouth activity 1	0.217	0.396	0.805	0.816
Eigenvalue	2.831	1.883	1.839	
Variance (%)	35.391	23.531	22.989	
Cumulative (%)	35.391	58.923	81.911	

I used Cronbach's α test to verify the survey tool's reliability. Cronbach's alpha ranged from 0.855–0.931 for emotional responses, and was 0.899 for participation satisfaction, 0.837 for WOM praise, and 0.836 for WOM activity. I also conducted confirmatory factor analysis to verify convergent and discriminant validity, as shown in Table 4. During confirmatory factor analysis, I refined the scale using modification indices to ensure that the standard loading was below 0.500 and met the goodness-of-fit criteria. I used the maximum likelihood method in the analysis, which assumes multivariate normality. Goodness-of-fit was evaluated to check whether the construct concept and variable composition were optimal. As a result, the Turker–Lewis index was 0.938, the comparative fit index was 0.949, $X^2/df=2.676$, and the root mean square error of approximation was 0.070, indicating that the fit was appropriate (19).

Table 4: Confirmatory factor analysis results

Variables			***Estimate***	***SE***	***CR***	***P***
Emotional response	Ventilation	Ventilation 5	1.000			
		Ventilation 4	0.954	0.063	15.229	<0.001***
		Ventilation 3	1.067	0.064	16.613	<0.001***
		Ventilation 2	1.036	0.061	17.095	<0.001***
		Ventilation 1	1.070	0.061	17.447	<0.001***
	Enjoyment	Enjoyment 5	1.000			
		Enjoyment 4	1.078	0.056	19.295	<0.001***
		Enjoyment 3	1.035	0.054	19.011	<0.001***
		Enjoyment 2	1.041	0.052	20.081	<0.001***
		Enjoyment 1	1.074	0.054	19.865	<0.001***
	Sense of dominance	Sense of dominance 4	1.000			
		Sense of dominance 3	0.895	0.052	17.275	<0.001***
		Sense of dominance 1	0.750	0.048	15.726	<0.001***
Participation satisfaction		Participation satisfaction 1	1.000			
		Participation satisfaction 2	0.907	0.047	19.140	<0.001***
		Participation satisfaction 3	0.953	0.046	20.553	<0.001***
		Participation satisfaction 4	0.921	0.048	19.121	<0.001***
Word-of-mouth praise		Word-of-mouth praise 1	1.000			
		Word-of-mouth praise 2	0.984	0.057	17.414	<0.001***
Word-of-mouth activity		Word-of-mouth activity 1	1.000			
		Word-of-mouth activity 2	1.057	0.057	18.445	<0.001***

SE, standard error; CR, construct reliability *P*<0.001***; tested by confirmatory factor analysis

To confirm discriminant validity, I conducted a Pearson correlation analysis on the factors for the unidimensional variables (Table 5). Discriminant validity exists if the correlation coefficient between each construct at a 95% confidence interval is below 1.000 (20).

Table 5: The discriminant validity between each factor

Variables	*Enjoyment*	*Ventilation*	*Sense of dominance*	*Participation satisfaction*	*Word-of-mouth praise*	*Word-of-mouth activity*
Enjoyment	1.000					
Ventilation	0.547***	1.000				
Sense of dominance	0.584***	0.593***	1.000			
Participation satisfaction	0.462***	0.832***	0.582***	1.000		
Word-of-mouth praise	0.482***	0.690***	0.617***	0.620***	1.000	
Word-of-mouth activity	0.569***	0.707***	0.617***	0.719***	0.662***	1.000

P<0.001***, tested by Pearson correlation analysis

Statistical analysis

Statistical analyses were performed using SPSS and AMOS software (version 24.0; IBM Co., Armonk, NY, USA), with the statistical significance set at a *P*=0.05. First, I conducted a frequency analysis of participants' characteristics. Second, I conducted factor, reliability, and correlation analyses to verify the validity and reliability of emotional response, participation satisfaction, WOM praise, and WOM activity. Third, I used confirmatory factor analysis and structural equation modeling to verify the hypotheses.

Results

The structural model analyzed the relationships among emotional response, participation satisfaction, WOM praise, and WOM activity for students participating in school physical education. This analysis showed that the Turker–Lewis index was 0.928, the comparative fit index was 0.939, X^2/df was 2.996, and the root mean square error of approximation was 0.076, indicating that the goodness-of-fit was satisfactory. These findings corroborate the appropriateness of the research model used.

Table 6 shows the results of the tests for Hypothesis 1. Overall, students' emotional responses affected their participation satisfaction with school sports, although not all the subfactors supported this.

Table 6: Hypothesis test results of the relationship between the emotional response subfactors and participation satisfaction

Hypothesized path			*β*	*Standard error*	*t*	*P*	*Assessment*
Ventilation	→	Participation	1.045	0.073	14.333	<0.001***	Accept
Enjoyment	→	satisfaction	-0.080	0.051	-1.584	0.113	Reject
Sense of dominance	→		0.122	0.048	2.543	0.011*	Accept

*P<0.05, ***P<0.001; tested by path analysis

Regarding the relationship between ventilation and participation satisfaction, the path coefficient between the two was statistically significant at 1.045 (*t*=14.333, *P*<0.001), supporting the hypothesis. For the relationship between enjoyment and participation satisfaction, the path coefficient between the two was not statistically significant at -0.080 (*t*=-1.584, *P*=0.113), rejecting the hypothesis. Regarding the relationship between the sense of dominance and participation satisfaction, the path coefficient between the two was statistically significant at 0.122 (*t*=2.543, *P*=0.011), again supporting the hypothesis.

Concerning Hypothesis 2, satisfaction with participation in school sports affected WOM praise. Supporting the hypothesis, the path coefficient between participation satisfaction and WOM praise was statistically significant at 0.697 (*t*=14.301, *P*<0.001).

As for Hypothesis 3, again, satisfaction with school sports participation affected WOM activity. Supporting the hypothesis, the path coefficient between participation satisfaction and

WOM activity was statistically significant at 0.847 (t=16.577, P<0.001).

Discussion

Relationship between emotional response and participation satisfaction

This survey of students in Korea revealed that their emotional responses had a significant effect on their satisfaction with school sports. The examination of the sub-factors of emotional responses showed that ventilation and a sense of control (dominance) significantly impacted participation satisfaction, although enjoyment had no effect. Thus, the results showcase that emotional responses are important antecedents of participation satisfaction in the context of school sports.

Westbrook (21) highlighted the importance of the relationship between emotional responses and satisfaction. His study on the purchase of cars and cable TV services verified the relationship among emotions, satisfaction, complaining behavior, and WOM. He showed that positive emotional responses to product consumption significantly impact satisfaction with the product, while negative emotional responses negatively affect satisfaction with the product. Mano and Oliver (22) presented a satisfaction model indicating that emotions about a product affect satisfaction. Park and Choi (23) investigated the relationship between customers' emotional responses and customer-perceived satisfaction and found that emotional responses affect satisfaction. The subfactors of emotional responses—specifically, dominance, enjoyment, and arousal—perceived by exhibition hall visitors significantly impacted visitor satisfaction (24). Among emotional responses, positive emotions had a greater impact on satisfaction than negative emotions (25). The results of these previous studies support the current findings.

In summary, this study demonstrates that students' satisfaction with school physical education occurred based on their interests, the stimulation of their emotions, and specific perceptions of feelings of control. To increase participation, school physical education teachers are encouraged to study and better understand the impact of students' emotions on their satisfaction with physical education classes to encourage improvement. This means continuously striving to influence and improve physical education classes to elicit emotional responses in students, as these may then help students experience satisfaction with the practice.

Relationship between participation satisfaction and WOM praise and WOM activity

The current examination reveals that participation satisfaction significantly affects both WOM praise and activity, suggesting that participation satisfaction is an important antecedent of WOM praise and activity. Customer satisfaction influences consumer attitudes and continues influencing WOM intention (26). In Bitner's (27) satisfaction model, customer satisfaction affects one's attitude after purchase and the positive or negative WOM effect on others. In addition, customers who experience dissatisfaction are less likely to maintain a continuous relationship with each other than those who experience satisfaction. The higher the satisfaction perceived by the customer, the better the customer's attitude toward service quality, and the greater the possibility of continued customer retention.

Looking at studies in Korea, as consumer satisfaction with educational services increased, positive WOM activity also increased, while dissatisfaction and negative WOM activity decreased (28). In a study on service quality, satisfaction, and WOM intention (29), satisfaction with the service quality of public sports facilities positively affected WOM intention about programs, leaders, and community contributions. In a study examining satisfaction and WOM (30), satisfaction with professional baseball stadium facilities affected WOM intentions.

The results of these studies support the current findings. Customers' perceived satisfaction can provide feedback after they experience and evaluate services and products. In other words, when customer expectations are met or exceeded, high

satisfaction is likely to occur, the likelihood of seeking the object of the experience again increases, and positive WOM activity can instill positive consumption behavior. Therefore, school sports personnel and class administrators should be aware that higher satisfaction among students participating in school sports can lead to positive WOM praise and progressive WOM activity. These factors should be considered in school physical education management.

Conclusion

The emotional response of students participating in school sports was related to participation satisfaction, WOM praise, and WOM activity, and that participation satisfaction had a possible causal relationship with WOM praise and WOM activity. Teachers and administrators in charge of school sports should examine whether student participants are having positive emotional experiences and assess student tendencies toward school physical education activities. Suppose a school sports program is developed, prepared, and implemented so that the class structure is well organized and efforts are made to ensure substance. In that case, this can induce a positive emotional response to school sports participation. To solidify the foundations of school physical education, positive emotional responses from students should be cultivated, and efforts made to reduce negative emotions and feelings. Those in charge of school sports activities may provide key contributions to the lives of students by promoting the establishment of a foundation for a lifelong participation in sports. To improve the future health of these students, the recommendation is to strive to ensure that students' participation satisfaction positively impacts the effects of WOM on their ongoing participation in school sports.

Journalism Ethics considerations

Ethical issues, including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, and redundancy, have been completely observed by the author.

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Conflict of Interest

The author declares no conflicts of interest.

References

1. Abildsnes E, Stea TH, Berntsen S, et al (2015). Physical education teachers' and public health nurses' perception of Norwegian high school students' participation in physical education–a focus group study. *BMC Public Health*, 15:1295.
2. Martins J, Marques A, Gouveia ÉR, et al (2022). Participation in physical education classes and health-related behaviours among adolescents from 67 countries. *Int J Environ Res Public Health,* 19(2):955.
3. Rukavina P, Doolittle S, Li W, et al (2019). Teachers' perspectives on creating an inclusive climate in middle school physical education for overweight students. *J Sch Health,* 89(6):476–484.
4. Akçakoyun F (2018). Analysis of self-esteem levels of students in physical education and sports high school. *J Educ Train Stud,* 6(2):73–79.
5. Stevens TA, To Y, Stevenson SJ, et al (2008). The importance of physical activity and physical education in the prediction of academic achievement. *J Sport Behav,* 31(4):368–388.
6. Tomik R, Olex-Zarychta D, Mynarski W (2012). Social values of sport participation and their significance for youth attitudes towards physical education and sport. *Stud Phys Cult Tour,* 19(2):99–104.
7. Arboleda AM, Alonso JC (2017). Students' emotional experience at the university: An alternative approach to understanding students as consumers. *Serv Mark Q,* 38(3):129–141.
8. Han H, Back KJ (2007). Investigating the effects of consumption emotions on customer satis-

faction and repeat visit intentions in the lodging industry. *J Hosp Mark Manag,* 15(3):5–30.
9. Farwq Hamadamin Z, Shankar Singh U (2019). Analyzing the main marketing strategies leading to customer satisfaction. *Int J Supply Chain Manag,* 8(1):113–123.
10. Mainardes EW, Coutinho ARS, Alves HMB (2023). The influence of the ethics of E-retailers on online customer experience and customer satisfaction. *J Retail Consum Serv,* 70:103171.
11. Le HTPM, Park J, Lee S (2023). Emotion and trust in virtual service assistant design for effective service recovery. *J Retail Consum Serv,* 74:103368.
12. Assael H (1998). *Consumer Behavior and Marketing Action.* South-Western College Publishing. Cincinnati, Ohio, USA.
13. Garbarino E, Johnson MS (1999). The different roles of satisfaction, trust, and commitment in customer relationships. *J Mark,* 63:70–87.
14. Harrison-Walker LJ (2001). E-complaining: A content analysis of an internet complaint forum. *J Serv Mark,* 15(5):397–412.
15. Chevalier J, Mayzlin D (2006). The effect of word of mouth on sales: Online book reviews. *J Mark Res,* 43(3):345–354.
16. Kim JH (2011). Assessing customer experiential value toward customer satisfaction and revisit intention for multiplex cinemas: Focused on target customers of the twenties. *Kor Consumption Culture Assoc,* 14(3):70–87.
17. Oliver A (1993). Cognitive, affective, and attribute bases of the satisfaction response. *J Consum Res,* 20:418–430.
18. Chiou JS, Cheng C (2003). Should a company have message boards on its web sites? *J Interact Mark,* 17(3):50–61.
19. Backhaus K, Erichson B, Gensler S, et al (2023). *Multivariate Analysis: An Application-Oriented Introduction.* Springer Gabler, Wiesbaden, Germany.
20. Kline RB (2023). *Principles and Practice of Structural Equation Modeling (Methodology in the Social Sciences Series) Fifth Edition.* Guilford Press, New York, USA.
21. Westbrook RA (1987). Product/consumption-based affective responses and postpurchase process. *J Mark Res,* 24:258–270.
22. Mano H, Oliver RL (1993). Assessing the dimensionality and structure of the consumption experience: Evaluation, feeling and satisfaction. *J Consum Res,* 20:451–466.
23. Park HJ, Choi KH (2009). Relation between the emotional labor of service employees in family restaurants and their customers' emotional responses and loyalty: Moderating effect of arousal. *J Tour Sci,* 33(4):315–335.
24. Kim IH, Hwang CY, Hwang IJ, et al (2016). Influence of emotional responding factors of visitors to digital archive exhibition venues on exhibition success through immersion and satisfaction. *J Korea Soc of Digital Ind and Inform Manag,* 12(3):181–204.
25. Pappas IO, Kourouthanassis PE, Giannakos MN, et al (2014). Shiny happy people buying: The role of emotions on personalized e-shopping. *Electron Mark,* 24:193–206.
26. Oliver RL (1981). Measurement and evaluation of satisfaction process in retail setting. *J Retail,* 57(3):25–48.
27. Bitner MJ (1990). Evaluating service encounters: Effects of physical surroundings and employee responses. *J Mark,* 54(2):69–82.
28. Chay JH, Kim CK, Yeo JS (2012). A study on the influence of customer satisfaction on word-of-mouth and brand attitude: Evidence from educational services. *J Mark Stud,* 20(3):155–176.
29. Kim GC, Choi SA, Lee JH (2012). A study on effects of repurchase intention and oral propagation of customer's service quality satisfaction to public sport facilities. *Korean J Sports Sci,* 21(3):655–665.
30. Sul MS, Park DY, Yoon TS (2012). Influential relationship of service quality in professional baseball stadium upon spectating satisfaction, loyalty and word-of-mouth intention. *J Sport and Leisure Stud,* 49(1):231–244.