Article

Estimating the Socio-Economic Value of Dance Curriculum as Public Education in Korea for Sustainable Development: Using Contingent Valuation Method

Jian Kim ¹ and Jeongok Yoon ^{2,*}¹ Department of Sports and Dance, Sangmyung University, Seoul 03016, Korea; artsedu@smu.ac.kr² Global Research Institute for Arts and Culture Education, Sangmyung University, Seoul 03016, Korea

* Correspondence: innodance23@gmail.com

Abstract: The purpose of this study was to examine the socioeconomic value of dance curricula as public education for sustainable development. To demonstrate the legitimacy of dance programming in the arts curriculum, we sought to determine which of the contingent valuation methods (CVMs) is best suited to the application of the WTP model and how the socioeconomic value of school dance is ultimately evaluated. As a research method, we leverage CVM, which is widely used in practical policy research. The results of this study are as follows: As a result of estimating the socioeconomic value of school dances conducted by public education, additional income tax payment was estimated at KRW 22,367 per person. Suppose this is translated into approximately 5.452 million school-aged people (as of 2020, KOSIS), the total benefits of a school dance in Korean public education could be interpreted as an annual utility value of about KRW 121,944,884,000. This study has academic significance in that it demonstrates the socioeconomic value of school dance education as education for sustainable development. In addition, it has practical significance in that it can be used for institutional improvements and policy budgeting.

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Keywords: dance curriculum in school; public education; socio-economic value; contingent valuation method (CVM); sustainable development

1. Introduction

Worldwide, international organizations and academia are actively moving toward achieving the Sustainable Development Goals (SDGs) agenda. According to the UN, the concept of sustainable development forms three pillars of sustainability: environmental, economic, and social [1]. In this context, UNESCO has established the concept of Education for Sustainable Development (ESD) to empower students. This concept involves making responsible decisions to pursue current and future generations' social, economic, and environmental integrity. In addition, it has been suggested that school education and teachers play a decisive role in ESD as the subject responsible for the education of future generations [2]. One of the things to note from the perspective of ESD is the discussion of how to understand and teach related topics linked to the content elements that make up sustainable development (SD) [3].

As an extension of this discussion, physical education is recognized as a role in public education. Furthermore, physical activity prevents economic losses that can occur due to illness by promoting physical and mental health [4]. Currently, physical activity in public education in Korea is only covered in PE subjects, and dance education has not been actively carried out because a separate dance curriculum has not been established for PE subjects [5,6]. The issue has recently emerged with the overall revision of the national curriculum in 2022, as the Korean Minister of Education mentioned that he would consider entering a new dance curriculum. Dance also requires discussing the importance of future work and its role in sustainable development [7]. In other words, the role of dance

education in schools should be to cultivate healthy emotions and realize educational values from a holistic perspective by thinking and expressing creatively through dance [6].

In Korea, dance was added as a marking textbook to the Enforcement Rules of the Elementary and Secondary Education Act of 2014 [8]. However, only music, art, and theater courses exist in the general optional arts curriculum, whereas dance is composed of specialized art courses in special-purpose high schools. In other words, it is possible to produce dance teachers systematically, but in reality, it is not possible to implement dance teaching at educational sites. This is because, as a regular textbook, dance textbooks do not create a demand for optional courses in art schools. Dance education has long existed as a sub region of physical education. In this regard, it has been consistently pointed out that there are many difficulties in expressive activities, teaching, and learning without physical education teachers majoring in dance [5,9]. It was also revealed that due to the difficulties of male physical education teachers in guiding expressive activities, the limitations of dance techniques, and practical demonstrations, the real class excludes much of this area [6]. Regarding the contradictions and limitations arising from educational subjects and methods, Kim and Hong pointed out that school dance has been ambiguous between “arts and physical education” [5].

Paradoxically, it can be concluded that it is not desirable for either physical education or dance education. From the perspective of dance education, the genre-oriented content previously dealt with in expressive activities is limited to the sufficient value of dance education because it consists of a range of contents that are only a cross-section of dance education. Rather, it would be more appropriate for physical education teachers to improve their professionalism and be treated separately by dance teachers as optional arts courses by re-organizing sports activities that emphasize aesthetic elements and creative characteristics. In this regard, existing researchers have developed a dance curriculum [10].

Therefore, concrete implementation measures should be discussed in South Korea to establish a solid position for school dancing. It can be considered that dance education operates in a convergent form with an independent curriculum or music, art, and theater, as in the cases of the worldwide curriculum [11–13]. Considering the circumstances of the curriculum in Korea, the most appropriate way is to organize dance in parallel with music, art, and theater in the optional art curriculum. This is because education through dance and dance education, which seeks diversity and integration, is possible in a system of independent curriculum education. To this end, a persuasion process is required to secure positive awareness and demand from the educational community regarding school dancing. In other words, universal logic is needed to explain why dance education is important as an art textbook in public education.

In this context, this study was problematic in securing the public value of dance education to create the choice demand for dance lessons. In particular, considering the application of school classes, which operate as optional subjects in the art curriculum in Korea, it was intended to deal with timely discussions on entering the dance curriculum. To enter the general choice of high schools, positive awareness of dance curriculum education and securing demand in the educational community must be made procedurally. Furthermore, the public value of school dance education and reasonable grounds for policy establishment is required for institutional improvements in the field.

Therefore, this study aimed to examine the socioeconomic value of dance curricula as public education for sustainable development. In general, because public education has the nature of public goods that cannot be converted into currency, a contingent valuation method (CVM) is used to establish hypothetical situations for non-market goods and estimate their benefits by assessing social value. Thus, the purpose of this study was to estimate the social value of dance teaching using the CVM method and to emphasize the importance of entering high school general choice dance teaching in terms of institutional issues and the timeliness of school dance. As a research problem, the WTP for evaluating the perception of the social benefit value of school dance was derived to determine how the social benefit value of school dance can be evaluated.

2. Method

2.1. Contingent Valuation Method (CVM)

The contingent valuation method (CVM) is an economic analysis method that can evaluate the value of nonmarket goods that do not have a transaction price because the market price is not formed [14–17]. It is a non-market valuation technique that establishes a virtual market for non-market goods and measures the value of individuals by stating their intention to pay for the evaluation target in monetary units [18]. In other words, it is a method of establishing a virtual market and asking how much consumers are willing to pay to enjoy the utility of non-market goods (willingness to pay, WTP) [19,20]. Researches applying CVM in various fields are in progress. In particular, research was conducted to evaluate the socio-economic value of preschool education, higher education, and culture and arts education in the education field [21–26]. In this way, the use of the CVM for national public funds is performed in order to consider the socio-economic impact because it is possible to estimate the social benefits of public policies by examining the changes in values according to the characteristics of individual respondents [17]. The analysis results can be used as basic data for policy making [27–30]. In this study, the socio-economic value of dance education was analyzed using the contingent valuation method. First, the social value of the policy was analyzed through an approach to evaluate the policy for policy recipients of dance education; then, the input and output of public funds related to the dance education policy were defined and the economic value was analyzed through the WTP.

2.2. Selection of Target Goods and Means of Payment for Application of CVM

In this study, the dance curriculum in schools was selected as the target good. School education is national institutional education that is not a commodity or service traded in the market [31,32]. Therefore, school dance is a nonmarket commodity that makes it difficult to form a market price and can be interpreted as a public good [33,34]. This study began with an awareness of dance as public education in Korea and attempts to estimate the socioeconomic value of school dance using the CVM method to lay the groundwork for establishing the system and policy of school dance. CVM is an analysis method that establishes a hypothetical situation and determines a survey response to a virtual situation on its own to assess the value of the goods to be measured [15,35,36]. The setting up of the virtual market should therefore be presented as a means of payment that can easily express respondents' WTP, which is critical in the design of the CVM survey [19]. The means of payment can improve the reliability of value measurements when properly linked to the goods to be evaluated [27]. Therefore, the evaluation target should be realistic and selected as a means of matching facts [37]. The CVM survey study mainly presented payment methods as taxes, funds, or admission fees. This study's estimated value lies in the dance curriculum used in public education. Currently, public education in South Korea operates as a national tax (education tax); therefore, in this study, income tax (education tax) was selected as the most appropriate payment method for verifying the value of non-use of a school dance. In this study, school dance was defined as "dance education in the arts school group's optional curriculum," and visualization material "Card News" was provided as an effort to present information on goods to respondents. Based on this, we intended to estimate the social benefits of dance as public education in Korea. The survey design was conducted with professors and Ph.D. researchers with expertise in dance education and marketing, and experts with extensive CVM analysis experience.

2.3. Collection of Surveys

This study was divided into preliminary and main surveys. The preliminary survey was conducted to establish the distribution of the amount to be presented in the main survey, and an online survey was conducted on 100 parents with children attending elementary, middle, and high schools nationwide for three weeks from 8 to 22 September 2020. The main survey, which was designed based on preliminary findings, conducted an online

survey for about five days from 26 to 30 October 2020. The Korea Development Institute's guidelines for analyzing CVMs recommend face-to-face surveys on the method of surveys, but they also acknowledge the usefulness of online surveys. Therefore, in this study, a non-face-to-face survey was conducted using online links to ensure the convenience of the survey and accurate samples. Preliminary surveys were conducted using the convenience sampling method, and in this case, the survey was requested to a survey specialist to overcome the difficulty of marking the survey subjects. Realistically, the CVM survey is not at a level that can be performed by individuals of the researcher, so professional surveyor referrals are inevitable and can be seen as the only realistic alternative. In particular, in this study, both the preliminary survey and the main survey provided card news with survey links to provide respondents with sufficient information about the purpose of the study and school dance. Respondents responded to the survey using the self-evaluation method, and a total of 550 surveys were recovered. A total of 454 surveys were used in the final analysis, except 62 of the collected surveys, and 34 of the resistant questions that represent rejection of payment in two surveys, which are judged to be inconsistent responses to the amount of payment.

2.4. Socio-Economic Characteristics of Respondents

The socio-economic characteristics of the respondents are as follows. The gender was 289 males (52.5%) and 261 females (47.5%); the age range was 8 people in their 20s (1.5%), 64 people in their 30s (11.6%), 337 people in their 40s (61.3%), and 141 people in their 50s or older (25.6%). As for educational background, 65 people (11.8%) graduated from high school or less, 77 people (14.0%) graduated from a junior college (educated), 346 people (62.9%) graduated from college (educated), and 62 people (11.30%) graduated from graduate school or higher. Income level was as follows: 24 people (4.4%) had less than KRW 1,000,000, 29 people (5.3%) had more than KRW 1,000,000 and less than 2,000,000, 80 people (14.5%) had more than KRW 2,000,000 and less than 3,000,000, 133 people (24.2%) had KRW 3,000,000 and less than 4,000,000, 170 people (30.9%) had more than KRW 4,000,000 and less than 5,000,000, and 114 people (20.7%) had over KRW 5,000,000. Based on the respondents' first child, the gender of the children surveyed was 278 males (50.5%), 272 females (49.5%), and the school level of their children was 185 elementary school students (33.6%), 181 middle school students (32.9%), and 184 high school students (33.5%). The specific characteristics of the sample are as follows in Table 1.

2.5. Data Processing and Analysis Method

The statistical processing of this study used the SPSS 24.0 and Stata 14.0 and R 3.6.1 programs, and the statistical processing of specific data is as follows: First, frequency analysis was performed to determine the distribution of demographic characteristics of the collected data. Second, Cronbach's α was identified for reliability verification of the questionnaires used in this study. Third, exploratory factor analysis was conducted to validate the validity of the questionnaire. Fourth, to derive consumers' willingness to pay for school dance curriculum education, a single-boundary positive selection, a double-boundary positive selection, and an open model were analyzed using log-logistic and parametric approaches to determine the impact between variables and dependent variables. This measured the non-use value benefits of school dance teaching based on the average WTP estimated in the final model.

2.6. Measurement

The questionnaire of this study consisted of the area of perception and attitude regarding school dance, the area of contingent valuation method, the area of experience in dance education, and the area of socio-economic characteristics of respondents. First, in the area of perception and attitude regarding school dance, a total of 6 questions were composed: 1 question of prior knowledge, 4 questions of attitude, and 1 question of awareness of the necessity of dance education. Prior knowledge refers to an individual's level of experi-

ence and information about a specific product or service [38], and attitude is the degree of an individual's favorable or unfavorable feelings toward school dance education [39]. Prior knowledge and attitude 5 points Likert used by Taylor and Todd (1995), Venkatech and Davis (2000) and adapted by Cha (2017) for consumer benefit analysis of ICT convergence technology in Korean professional sports clubs. The scale items were modified and supplemented and used in the questionnaire [39–41]. Second, the CVM questions consisted of two double-border dichotomy questions confirming the intention to pay for the operation of the school dance education system and one open-ended question, one resistance question to confirm the reason for refusal to pay, and one question to confirm the reason for the payment decision. A total of 5 items were composed of the items. Third, as for general questions about dance education, a total of 8 questions were composed, including 7 questions confirming the experience of participating in dance and 1 question confirming the intention to participate in dance education in the future. In particular, the presence or absence of experience in dance education is a major variable influencing the amount of willingness to pay, so it is possible to explore the possibility that past experiences or will to experience in the future can lead to actual actions. Accordingly, the questionnaire questions used in the study of Ryu (2019) using the evaluation of the value of intangible cultural heritage in Korea were modified and supplemented for use in this study [42]. Finally, the questions to confirm the demographic characteristics of respondents consisted of a total of 5 questions.

Table 1. Socio-economic characteristics.

	Division	Frequency	Ratio (%)
Gender	Male	289	52.5
	Female	261	47.5
Age	20s	8	1.5
	30s	64	11.6
	40s	337	61.3
	Over 50	141	25.6
Education	Less than high school	65	11.8
	College graduate	77	14.0
	Bachelor degree	346	62.9
	Master degree or higher	62	11.3
Income	Under KRW 1,000,000	24	4.4
	KRW 1,000,000~2,000,000	29	5.3
	KRW 2,000,000~3,000,000	80	14.5
	KRW 3,000,000~4,000,000	133	24.2
	KRW 4,000,000~5,000,000	170	30.9
	Over KRW 5,000,000	114	20.7
Child Gender	Male	278	50.5
	Female	272	49.5
Child's School level	Elementary School	185	33.6
	Middle School	181	32.9
	High school	184	33.5
Total		550	100

2.7. WTP Model for Evaluating the Socio-Economic Value of School Dance

This study analyzed the reliability and validity of the attitude item consisting of four items, excluding the single item prior knowledge item and the necessary item for dance education before estimating the willingness to pay. Internal consistency between the individual items constituting a concept was reviewed, and exploratory factor analysis was performed to verify the uni-dimensionality and construct validity of the measured items.

2.7.1. Exploratory Factor Analysis

This study conducted exploratory factor analysis to validate the questionnaire. As a result, the ‘attitude’ consisting of a single factor has an explanatory power of 80.1% for the entire variant. The KMO goodness of fit was 0.852, and Bartlett’s test results showed $\chi^2 = 1574.985$ ($p < 0.000$), which also secured the suitability of the sample. The exploratory factor analysis results for attitudes are shown in Table 2.

Table 2. Results of exploratory factor analysis.

Variable	Question	Common Variance	Factor 1
attitude	attitude 1	0.806	0.898
	attitude 2	0.748	0.865
	attitude 3	0.842	0.918
	attitude 4	0.808	0.899
Eigenvalue/ratio (%)			3.205/80.122

Bartlett test results: $\chi^2 = 1574.985$, $df = 6$, $p = 0.000$ KMO goodness: 0.852.

2.7.2. Reliability Analysis

The reliability analysis of the variables in this study, attitude, showed that the Cronbach’s α coefficient was 0.808, above the typical requirement level of 0.6, and the reliability results of the survey used in this study were very good.

3. Results

3.1. Rationales for WTP and Rejection to Pay

In the preliminary survey, the average willingness to pay of respondents through open-ended questions was KRW 35,190. According to the frequency of the estimated willingness to pay, KRW 1000, KRW 3000, KRW 10,000, KRW 30,000, and KRW 50,000 were classified into five sections. According to Kanninen’s (1993) study, the distribution of the suggested amount used for inducing respondents’ intention to pay and analyzing WTP estimation was selected in the range of 15 to 88% of the preliminary survey results [43].

The survey produced a total of five survey links, the types of proposed amounts derived from the results of the preliminary survey, and distributed the survey to a total of 550 people. In the survey distribution process, the survey links were randomly distributed according to the type of presentation amount to prevent the possibility of bias in surveys of the same type of amount to a particular group. The results of the analysis of the intention to pay and the reasons for rejection in the 488 questionnaires collected.

In the case of those who showed willingness to pay, 184 respondents (46.1 percent) said, “It is uncertain whether their children will be taught dance, but it seems necessary for quality education services,” followed by 176 (44.1 percent) and 39 others (9.8 percent). Next, 33 respondents (37.1%) said “dance education is not my concern” followed by 24 respondents (27.0%) who said “I think the government’s burden is transferred to the people.” 18 (20.2%) said that they would not benefit from dance teaching, 8 (9.0%) said they would not use additional taxes to promote dance teaching, 4 (4.5%) said they had no economic room, and 2 (2.2%) said they did not know how much to pay for dance teaching.

This excluded the results of 39 people who showed resistive responses and analyzed the results of a total of 454 respondents to perform WTP estimates.

3.2. Payment Intention Response Ratio

When estimating the willingness to pay for the ‘dance curriculum in school’, promotion through the dual-boundary dual-choice questioning method, the respondents’ response to the proposed amount will be four forms of response. ① Yes-Yes, ② Yes-No, ③ No-Yes, and ④ No-No. The results of the percentage of willingness to pay for this are specifically shown in Table 3.

Table 3. WTP response ratio for dance curriculum in school.

Suggested Amount	Observations (%)			
	N-N	N-Y	Y-N	Y-Y
KRW 1000	16	6	10	52
KRW 3000	29	3	17	33
KRW 10,000	40	4	27	27
KRW 30,000	43	8	24	17
KRW 50,000	51	5	32	10
total	179	26	110	139

The amounts presented in the questionnaire give respondents the same level of tax role. Respondents will respond with “yes” if their WTP is equal to or close to the amount given in the survey. This means that the higher the proposed amount, the lower the response rate, which is in line with the general economic theory [39]. The results of this study show that the lower the amount presented, the higher the rate of willingness to pay, and the higher the amount presented, the lower the overall rate of willingness to pay. Therefore, in this study, dance curriculum in school can be found to be a normal good.

3.3. Payment Intent Model Analysis

3.3.1. Comparison of Payment Intent Model

Given the significance of the variables established in this study, it was determined that the single-bounded dichotomous choice (SBDC) model supports higher theoretical validity than the double-bounded dichotomous choice (DBDC) model, OPEN ENDED model. This is because income has been identified in the SBDC model as having a statistically significant impact, given that the important variable regarding respondents’ willingness to pay is income. In general, the proposed amount and acceptability of payments in CVM studies appear to be inversely proportional structures. In other words, a higher presentation of payments reduces the likelihood of acceptance. In comparison, income levels and acceptability of payments are proportional. This can be interpreted as higher income levels increase the likelihood of payment acceptance. Thus, the results of this study can be considered consistent with the general results of the CVM study by demonstrating that the willingness to pay decreases as the proposed amount increases. Thus, in this work, we finally adopt an SBDC model that supports higher theoretical validity. Each model analysis result is shown in Table 4.

Table 4. Comparison of payment intent model.

Variable	SBDC	DBDC	OPEN ENDED
(constant)		*	
gender			*
age			
academic background			
income	**		
experience	**	**	
recognition	**	***	**
pre-knowledge			
attitude	***	***	
intention to participate	***	***	*
suggested amount	***	***	-
obs	454	454	454
χ^2	198.521 (10)	204.052 (10)	69.56 (9)
LLF	−213.29	−485.13	−48,888.73
Pseudo R ²	0.3176		0.0071

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

3.3.2. Single Bounded Dichotomous Choice Model

In the single-bounded dichotomous choice (SBDC), there are two responses to the proposed amount: yes or no. In such cases, only the bifurcated response to the proposed amount is materialized and analysis is performed thereon. The results of the analysis using the exponential function model are shown in Table 5. Algebraic likelihood functions in the log-logistic model were derived from -213.29 , χ^2 as 198.521 ($p < 0.000$), pseud R² statistics as 0.3176 , and variables that affect the payment of school dance were derived from income, experience, need for dance education, attitude, and future participation.

Table 5. Results of analysis of the SBDC log logit model.

Variable	Log-Logistic		
	Estimate	SE	z-Value
constant	1.2372	1.4722	−0.840
gender	0.2690	0.2783	0.967
age	−0.0044	0.0215	−0.208
academic background	−0.1901	0.1564	−1.216
income	0.2470	0.0935	2.642 **
experience	0.9077	0.3284	2.763 **
recognition	1.2728	0.4264	2.984 **
pre-knowledge	−0.0131	0.2828	−0.046
attitude	0.9169	0.2321	3.951 ***
intention to participate	1.3952	0.3369	4.140 ***
suggested amount	−0.5145	0.0931	−5.527 ***
obs	454	χ^2 (10)	198
LLF	−213.29	Pseudo R ²	0.3176

** $p < 0.01$, *** $p < 0.001$.

3.3.3. Socio-Economic Value Assessment of Dance Curriculum as Public Education

In this study, we analyze SBDC, DBDC, and OPEN-ENDED models to calculate WTP for evaluating the socio-economic value of school dance. The SBDC model is a single-boundary bifurcation selective model with an estimated WTP of KRW 22,367.2 per person. In this study, the value of school dance in public education was estimated based on income tax per person (education tax) of CU22,367, as the SBDC model supported higher theoretical validity was adopted. Consequently, this is estimated to be about KRW 121,944,884,000, translated into a population of about 5.452 million (as of KOSIS 2020) [44]. In other words, it can be interpreted that the overall benefits of school dancing in public education in Korea result in a utility value of approximately KRW 121,944,884,000 per year. Utility value is the satisfaction or usefulness felt when using a good or service. The utility value of school dance derived from this study is meaningful in terms of predicting the amount of budget execution for school dance operated by taxes and providing policy direction.

4. Discussion

This study was conducted on the premise that dance can enter the art subject group of ordinary subjects by limiting it to the dance curriculum of high schools. This was attempted as a process to seek valid persuasion regarding ‘Why should I teach school dance?’ We tried to calculate the WTP (willingness to pay) using the contingent valuation method and finally evaluated the social-economic value of school dance. Each model of single bounded dichotomous choice (SBDC), double-bounded dichotomous choice (DBDC), and the open-ended choice was analyzed. This was done to derive WTP by applying log-logistic and parametric approaches to confirm the influence between input and dependent variables. The single boundary division selection model, which was judged to support the highest theoretical effectiveness, was derived as the final model. The variables influencing the willingness to pay for the value of school dance were income, experience, recognition of dance education needs, attitude, future participation intention, and presented amount.

First, income is the most important variable for respondents’ WTP [45]. In general, household income levels tend to be proportional to dance experience, and children and adolescents from low-income families have low dance experience. They are now reported to have problems with BMI, total cholesterol, and LDL cholesterol levels, which are directly related to obesity or health problems [46]. Therefore, providing dance education as public education so that all children and adolescents, regardless of their income experience, can be an attempt to practice sustainable education. This is because sustainable and development-oriented knowledge, technology, and attitudes can be practiced through cultural art and dance.

Second, parents’ experience in dance has been identified as a determinant that positively impacts WTP in school dancing. In other words, the more positive the parents’ past dance experience, the higher the WTP. This is interpreted as a high acceptance of the socioeconomic value of dance education, accumulated through past experiences in dance participation [47]. Furthermore, parents thought that children’s intentions to participate in future dance education were determinants on WTP. This means that the higher the parents’ willingness to involve their children in dance education as public education, the higher the WTP. A high degree of future participation means that children’s participation in dance education will likely lead to actual behavior. This recognition can be interpreted as being reflected in participation cost, namely, WTP.

Third, awareness of and attitude toward the necessity of dance education can enhance the value of school dance. Recognizing the need for dance education by teachers, parents, and students participating in dance at school is an important factor in determining the attitude toward participating in classes and participating in activities to experience and create dance outside of school in the future [5,8,48,49]. In the long run, students, teachers, and parents who consider the value of school dance high are also interested in an in-depth understanding of dance, its content, and detailed skills of dance education.

Lastly, providing dance education as public education so that all children and adolescents, regardless of income experience, dance can be an attempt to increase the value of school dance and practice sustainable development education. This is because cultural arts and dance can practice a sustainable and development-oriented way of life of knowledge, technology, and attitude. Therefore, the socioeconomic value of school dance derived from this study can be interpreted as a positive possibility for the dance curriculum and educational program as sustainable development education in the future.

Until now, no evaluation of the social values of dance education as a public good has been made in Korea and worldwide. Among the studies related to public goods, those on the social values of education have been conducted in various fields such as art, literature, career, economy, and museum education. What has been discussed in previous studies has mainly focused on the educational effectiveness of participation in education. It analyzed the effectiveness of how education affects beneficiaries from a provider's perspective. However, this study estimated social value from the perspective of school dance beneficiaries and linked it to educational policy.

In Korea, the operation of public education sites by education policy generally leads to the nation's finances, managed through the people's tax burden. In light of this, the study estimated the social value of school dancing based on an income tax per person (education tax) of KRW 22,367. Consequently, the socioeconomic value of school dance in Korea's public education can be interpreted as a utility value of about KRW 121,944,884,000 per year in terms of the school-age population nationwide (as of KOSIS 2020). Compared to the annual public education cost of KRW 11,749,559 per person in Korea's higher education, the result can be seen as insufficient at 0.19% of a school dance. However, considering that the local education tax per Korean citizen is about KRW 126,000, school dancing can be interpreted as worth 17.7% of the local education tax. Considering that local education taxes are used in various ways, such as expanding educational infrastructure and improving the educational environment, the results of this study can be seen as a meaningful indicator of the value of school dance and basic data to gauge the importance and preference of school dance in public education.

This study intended to analyze the social utility value of school dance by calculating its economic value from the perspective of public education operated on the national budget. Of course, there may be a misunderstanding that the presumption of public education as an economic value distorts the nature of education from a pedagogical point of view. Therefore, it would be more appropriate to see this study as an important indicator of the quality and sustainability of education from a perspective to assert the legitimacy of a school dance, that is, the number of resources invested in dance education as public education. Such research attempts could be useful for the budget size and for creating demand in relation to planning public education and curricula. In particular, to establish a developmental plan for school dance sites at a national and public level, these results can be used as a logical basis to justify the value of dance, namely the value of social utility through school dance.

5. Conclusions

The purpose of this study was to estimate the social value of dance curriculum education using the CVM method and to emphasize the importance of entering a high school general choice dance curriculum in terms of institutional issues and the timeliness of school dance. To ensure the public value of dance education to create the demand for choice of dance courses, specifically to demonstrate the legitimacy of dance teaching in the art curriculum, the CVM method for evaluating the value of school dance is best applied and how the social value of school dance is finally evaluated. The conclusions of the study are as follows: The value of school dance in public education was estimated based on an income tax per person (education tax) of KRW 22,367. Converting this to about 5.452 million school-aged people (as of KOSIS 2020) [44], the total value of school dance society is estimated to be about 121,944,884,000 won per year. These results can be seen as

an insufficient proportion of school dance at around 0.19% compared to the annual public education cost of about KRW 11,749,559 per person in Korea's higher education, as presented by the OECD (2016). However, considering that the local education tax per Korean citizen is about KRW 126,000 [49], school dance can be interpreted as worth 17.7 percent of the local education tax. Considering that local education taxes are used in various ways, such as expanding educational infrastructure and improving the educational environment, the results of this study can be seen as basic data to gauge the importance and preference of school dance in public education. This study suggests the following implications. In future studies, research should be conducted to compare and analyze the value of school dance with other subjects in estimating the social value of school dance. Establishing of a new course refers to the allocation of fixed hours. Therefore, if not only the single value of school dance as a basis for establishing policies and systems, but also the value of music, art, and theater classes in the current curriculum, the value of school dance can be derived more meaningfully. In conclusion, this study is significant in that it can provide basic data that can be used to improve school dance education and establish policy budgets by demonstrating the social value of school dance in terms of logical validity.

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