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The role of education for the development of environmental protection: a case for Korea

Abstract

Identifying societal and economic factors that have an influence on sustainability courses is of great importance for grappling environmentally challenging issues. Education has long been seen as an effective method to efficaciously diffuse knowledge, values, and behaviors that help to better protect the environment, as well as promote ecological awareness. In order to promote environmental education, establishing environmental courses is paramount. This paper presents significant findings that showcase the discrepancy between the total number of environmental classes offered at the top 20 universities and the rest of the non-top-tier universities located throughout South Korea. Within the groups, there are subgroups organized by Seoul-based areas and non-Seoul-based ones. The purpose of the groups is to estimate heterogeneous coefficients of total sustainability classes at Seoul-based top universities and non-Seoul-based-top ones, respectively. A comparison by locations shows that Seoul-based-top universities and non-Seoul-based-top universities bear a striking distinction in total sustainability classes per semester. Immense discrepancies are also found between the number of environmental classes offered at prestigious and lesser prestigious universities exist particularly in non-Seoul areas. Result from a comparison by different ownerships indicates evidence of heterogeneity across types of ownership.

Keywords: economics, education, environment, universities, classes, ownership, heterogeneity

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Introduction

Environmental awareness has surprisingly increased over the years due to various reasons, including record- breaking climate change, acute pollution, environmental degradation, and resource depletion. To tackle serious environmental challenges, multiple agents are participating in the process to correct and fix these imminent environmental issues. At the heart of this process is the engagement of several agents who are collaborating in educationally relevant areas of study, as Higgitt[1] suggested. Cortese[2] and Gough[3,4] pointed out that education has long played a pivotal role in dispersing beliefs, values, and knowledge in society. The values are ones that contemporary society observes with great scrutiny. Educational institutions in South Korea typically fall into four categories: primary education, middle school, high school and university. This paper solely focuses on the university level of education. At many universities, it is readily noticeable which courses faculty and students find interesting. Universities certainly choose to open particular courses, of which students decide to enroll into or not. If particular courses are plentiful, students are more likely to attend those classes. Imagine that green classes are in great abundance. Behind the large quantity of classes is a reflection of how important green classes are to a school's educational program.

Each school has budget constraints and specific budget quotas to meet that adversely affect which introductory courses students can take. Out of the explicitly specified quotas, let us assume that schools assign a larger portion of the fixed quotas to requisite lectures. Greater significance is naturally placed on these types of courses. Classes in large numbers are statistically more easily accessible for students. The probability is greater that students are exposed to some assigned courses in larger numbers. Education is a powerful and convenient tool for introducing and exposing students to particular values that other people are concerned with in their hearts and minds. Among the classes introduced at various universities, environmental lectures can be made more readily available to students. With the help from regular educational institutions, values regarding the environment can be subtly yet surely diffused. This paper focuses on factors that directly impact the procurement of environment-related courses at the university level. The dependent variable is the total number of green courses offered per semester. To be more specific, it is calculated as the total summation of environmental courses lectured in Korean, ecology courses lectured in Korean, and environmental courses lectured in English.

This paper studied determinants for environmentally relevant courses per spring and fall semester for 61 universities, respectively. First and foremost, this paper finds such explanatory variables which heavily influence the number of environmental classes offered per semester. Second, this paper runs a regression model to measure the impacts on each explanatory variable which encompasses total number of sustainable classes offered per semester. The two groups for this regression include: top 20 universities and all non-top 20 universities throughout South Korea. More specifically, the two groups here include all universities located within the 13 different provinces throughout the Korean peninsula. Within these two groups, the purpose is to measure the difference in numbers of eco-friendly courses between the top universities and non-top universities. Third, this paper regroups universities by location. It proceeded to estimate different numbers of environmental classes between prestigious Seoul-located universities and prestigious non-Seoul-located ones. In this regression, the data is separated by university location, those ones located in Seoul and those located outside of Seoul. Last but not least, this paper regroups universities by three ownerships. Its major

reason lies in assessing impacts of different school characteristics on the courses.

The rest of the study is organized as follows: Section 2 deals with literature review; Section 3 covers estimation methods; Section 4 presents the data; the subsequent section, Section 5, explains analysis of the results; Section 6 examines political implications; and last but not least, Section 7 is the conclusion.

Literature review

Empirical literature across the globe has explored education as a means for sustainability.[5–13] Environmental education is one of the most successful and effective methods to disseminate and influence behaviors, values and knowledge in society.[14–25]

Bekessy[26] and Holdsworth[27] investigated the level of sustainability advancement at various university levels in Australia. To be more precise, their investigation aimed to assess various levels of Australian universities participation in Professional Development activities for academic purposes. Australian universities assumed a grave sense of international responsibility for promoting educational sustainable development programs and curricula. A sizeable number of universities signed sustainability education declarations to achieve sustainability education literacy among students and staff.[28] The declarations mainly have to do with Professional Development programs, PD for short. The programs were designed and developed out of desperation for the need of transformative change in education for developmental sustainability. As Resnick and Williams Hall[29] witnessed, international educational systems have firmly ensconced traditional teaching methods that espouse values and facts. Serdyukov[30] defined that traditional teaching and learning methods passed down to future generations include educational results where individuals are trained to think, practice and act. Loving[31] decisively argued that primary goals of education are to have young generations adequately prepared for future careers, not encouraging them to earn and learn ecological awareness. With these societal backgrounds at play, declarations are born in order to rise up to the myriad of societal and environmental crises. Holdsworth[27] mainly seeks out whether universities in Australia fulfilled the declarations adequately by implementing PD programs at higher educational institutions. Originality and careful evaluations led by Holdsworth[27] offer a starting-point for closely investigating PD programs that help address and resolve environmentally serious challenges. The programs are fundamentally designed to enhance sustainability education and teaching sustainability development. PD programs for academics, as the paper found out, however are not entirely entrenched and implemented to tackle environmentally challenging problems. Much of the information about the environment is available through web-based surveys. Despite its data availability, extremely limited data on PD activity can be found. The paper also identified a dearth of evidence in successfully facilitating the declarations by a considerable number of Australian universities. The paper is meaningful in a sense that it firstly established a solid basis for developing more effective and efficient PD programs. One of the critical limitations of the paper involves the difficulties with identifying empirical evidence associated with informal programs. Informal activities including spreading environmentally-conscious behavior, environmentally friendly beliefs, and environmentally caring values are rarely measured and estimated using qualitative methods. Largely based on this literature above, this paper investigates environmental education–a case for Korea.

Estimation methods

The relationship between the number of environmental courses provided by universities and their key determinants is formulated as follows:

$$\ln Y_{it} = \beta_0 + \sum_j \beta_j \ln X_{jit} + \sum_m \gamma_m Z_{mi} + \varepsilon_{it}$$

where lnYit is logarithm of number of courses provided by university i in period t, lnXjit is logarithm of a vector of J determinants of providing environmental courses, Z is M vector of time-invariant university, location and financial characteristics, βs and γs are the vectors of unknown parameters to be estimated and ε is a random error term with mean zero and constant variance. It contains time and university heterogeneity fixed effects which are controlled for in the specification and estimation of the model. This paper chooses to use ordinary least squares, also known as linear least squares, for estimating unknown yet potentially influential parameters in all the linear regression models presented. The main dependent variable focuses on the total number of environmentally-conscious courses offered per semester. To identify well-explained independent variables, the paper carefully selected a multitude of explanatory variables in various categories. All of the explanatory variables in the regression models are exogenous in context. Also, this paper found there to be no existence of perfect multicollinearity among the variables. With this fact at work, regression models are specified, estimated and tested.

Data

The data presented is from Higher Education in Korea. Primary datasets consisted of 366 university level observations in Korea's thirteen different provinces during the years 2015, 2016 and 2017 per spring and fall semester. It covers six time periods (semesters) in total. Data determinants for total number of environmental classes offered per semester are: total number of students per semester, total class credits per semester, and tuition fees per year. In order to adjust for inflation, the nominal tuition fees are converted to fixed values using the consumer price index. The data collected, which includes the total number of environmental classes that opened per semester, was collected using laborious methods. It took approximately three months of computer research to count the total number of environmental classes being offered on each university's homepage. Cumulative numbers of sustainable development classes are screen-captured, in case there are future inquiries on the data collected. Rankings of universities are decided accordingly by an evaluation given by Joong Ang IlBo, the first institute to assess rankings of universities systematically and fairly. The rankings are measured taking scores of four categories into account: professors' performance, students' performance, appropriate educational background, and school reputation.

Analysis of the results

The data is analyzed using both simple descriptive and regression methods. In analyzing the data, we focus on comparison of universities by location, ranking and ownership. Table 1 displays summary of statistics of means of the data for the following variables: time periods, school characteristics, financial status of schools, and explanations on classes at schools used in the study (Table 1). To check for a strong relationship between two variables, correlation coefficients among all 9 of the variables were used in the study and can be found in Table 2. Total class credits per semester were positively and strongly correlated

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with total number of students. The total sum of environmental classes, as expected, showed a strong positive correlation with Environment classes taught in Korean. İt was also greatly correlated with Ecology classes taught in Korean. Between each pair in the correlation matrix of the variables, total class credits per semester and total students show an acute correlation, much higher than 0.50. A positively significant correlation between total sum of Environment classes taught in Korean and Ecology classes taught in Korean exist. All three of the impressive correlations indicate substantial multicollinearity, and unlikely confounded estimated results. The rest of the pairs were less correlated with each other and did not exhibit any signs of multicollinearity at great level (Table 2).

Table 3 shows estimation results based on the model specified in (1) for impacts of Seoul and non-Seoul locations between the top 20 universities and the rest of universities. Model 3 in Table 3 is a basic model compared to Model 1 and Model 2. Model 3 includes all thirteen provinces in order to better estimate coefficients for all of the variables. In addition, Model 3 discovers that less prestigious universities have fewer courses on the environment, which was estimated at -12.693. It implies that nearly thirteen courses per semester are offered more at preeminent universities across the Korean peninsula. Also, Seoul-based universities have more environment-associated courses than non-Seoul-based universities, which was estimated at 5.626. It means 5 more courses available at Seoul-based schools. Model 1 and Model 2 are made by separating Model 3 into detailed locations. A newly set reference group in Model 1 is Seoul-located top universities, whereas a newly fixed reference group in Model 2 is non-Seoul-located top universities. Model 1 shows that compared to top 20 Seoul-located universities, Seoul-located top twenty universities offer less environmental classes. İts number amounts to -13.528, which infers 13 less environmental courses. Model 2 shows that compared to top universities in the Seoul area, the top universities in the non-Seoul areas have far fewer environmental classes. Universities located in non-Seoul areas have 24 less environmentally related courses. Top schools in Seoul were more prone to attain opportunities which students could develop accumulated beliefs, values, and knowledge on sustainability. Top schools outside of Seoul, however, were far less likely to supply students with eco-conscious chances to address and resolve environmental crises.

A number of universities do not offer environment courses. The general Model 3 is also estimated with Heckman's two-step method to account for differences in probabilities of offering environmental courses by the two groups of universities. The model is labelled as 4a and 4b representing the probit and least squares models. The estimation result showed that the selection parameter Mills Ratio is statistically significant suggesting no sample selection problem. The Model 3 is the finally accepted model and subsequently used as a base for analysis of the regression results (Table 3).

Table 4 indicates approximate results for impacts of three distinct ownerships between prestigious universities and non-prestigious ones. Model 8 in Table 4 is a basic model which contains all three ownerships, fixing a sum of public-funded, special law corporation, and state-funded corporatization as a reference group. Based on Model 8, Model 5, Model 6 and Model 7 are produced by different ownerships. Model 5 is generated by a first ownership – a mixture of public-funded, special law corporation and state-funded corporatization. The total number of observations in Model 5 is 30. Seoul-situated universities within these three mixtures of ownerships played a vital role in enhancing sustainability-awareness, setting Gangwon-situated universities as a reference group. The number was estimated with a positive result of 31.462. Seoul-situated universities which are categorized as public-funded, special law corporation and state-funded corporatization ownerships opened 31 sustainability relevant courses more compared with Gangwon-situated universities with these same ownership attributes. Also, the R-square for Model 5 was 0.983, which is extremely high. The data used in this paper is tightly close to the fitted regression line found in Model 5. Model 6 is generated by a second ownership-state-funded. The total number of observations in Model 6 is 72. Top tier state-funded schools introduce nearly 42 more environmental classes than second tier state-funded schools. The estimated 42 classes were calculated after rounding down to the nearest number. A reference location in Model 6 is Gangwon. Compared to state-funded universities located in Gangwon, Daegu-placed schools with the same ownership qualities have a total of 20 more environmental classes. Comparing Gangwon-placed and state-funded schools, Daejeon-placed and state-funded schools have a total of 41 more environmentally-friendly classes. Taking the same reference group into account, Busan-placed and state-funded schools have a total of 43 more sustainability classes. In the case of Seoul-placed and stated funded schools, the schools have 27 fewer classes associated with environmental sustainability relatively compared to Gangwon-placed and stated funded schools. R-square for Model 6 also yields a result of 0.855. This indicates striking evidence of a well-fitted regression model.

Model 7 is generated by a third ownership private. The total number of observations in Model 7 amount to 264. Renowned private schools officially present 11 eco-relevant classes more than lesser renowned private schools. Model 7 as well as Models 5 and 6 also set Gangwon as a reference location. Comparing Gangwon-positioned private schools, Gyeonggi-positioned private schools have 23 fewer classes for sustainable development. Taking the same reference group into account, Gyeongbuk-positioned private schools have 36 fewer classes on nature-friendly classes. The following five different locations are all compared using the same reference group. Busan-positioned private schools have 32 fewer green-loving courses. Seoul-positioned private schools have 21 fewer nature-loving courses. Sejong-positioned private schools have 29 fewer sustainability-loving courses. Incheon-positioned private schools introduce less than 14 eco-conscious courses. Chungnam- positioned private schools open less than 20 environmentally-conscious courses. Model 5, 6 and 7 are nested in Model 8. Model 8 is equivalent of Model 3 but it controls for province effects. The estimation result is more stable in the pooled model (Table 4).

Estimation results for determinants on green courses indicate that Seoul-situated-top universities have more ecofriendly courses than the non-Seoul-situated-top universities. A disparity on green classes between the renowned universities situated in Seoul and the renowned ones outside of Seoul is negative 10. The estimated numbers for each are 13.528 and 24.029, respectively. This demonstrates that noted universities in Seoul are more open to environmentally- conscious courses than noted universities outside of Seoul. Also, twenty renowned universities with a state- funded ownership display a large distinction compared to twenty unrenowned ranked universities with a state-funded one. The number amounts to negative 41.681. This implies that roughly 41 environmental classes differ per semester between these two categories. Controlling for the same ownership, variations are huge among Gangwon-located schools versus Daegu-

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located ones, Gangwon-located schools versus Daejeon-located ones, Gangwon-located schools versus Busan-located ones and Gangwon-located schools versus Seoul-located ones. Private schools, however, display less distinction between the renowned and unrenowned universities. A gap between top private universities and lesser known private top universities is negative 11.352. This means that less variation exists between renowned and unrenowned schools with regards to introductory eco-friendly classes.

Table 1 Summary statistics of means of data, N=366 obs

Variable	Description	Mean	Std. Dev.	Min	Max
A. Dependent variable					
ttenveco	total sum of environmentally relevant courses	20.164	20.258	0	103
B.Time period					
smtr	spring semester 1; fall semester 2;	1.5	0.501	1	2
yr	2015, 2016 and 2017	2016	0.818	2015	2017
C. School characteristics					
id	total number of universities	31	17.631	1	61
ttstu	sum of students enrolled and on the leave of absence	15764.34	8667.508	272	34482
own1	Public-funded 1; State-funded 2; State-funded Corporatization 3; Private 4; Special Law Corporation 5;	3.557	0.898	1	5
own2	Public-funded, Special Law Corporation and State-funded Corporatization 0; State-funded 1; Private 2;	1.639	0.629	0	2
loc1	Gangwon 1; Gyeonggi 2; Gyeongbuk 3; Gwangju 4; Daegu 5; Daejeon 6; Busan 7; Seoul 8; Sejong 9; Ulsan 10; Incheon 11; Chungbuk 12; Chungnam 13;	6.852	3.092	1	13
D. Financial status					
CPI	CPI in 2015 100; CPI in 2016 100.97; CPI in 2017 102.97;	101.3	1.22	100	102.93
tuit	tuition fee	6820.152	1710.356	2389.5	9114.5
adjtuit	adjusted tuition fees take CPI into account	6733.449	1689.92	2322.064	9107.9
E. Classes					
ttclcrd	total number of class credits opened per semester	4568.537	2482.601	74	10506
envkor	environment classes opened in Korean language	17.825	18.205	0	103
ecokor	ecology classes opened on Korean language	2.219	3.45	0	18
enveng	environment classes opened in English language	0.079	0.515	0	5

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Table 2 Correlation matrix of the variables, N=366 observations

Variables	Year	Semester	Total Class Credits Per Semester	Environment Class in Korean	Ecology Class in Korean	Environment Class in English	Total Sum of Environment Classes	Total Students	Adjusted Tuition Fee
Year	1								
Semester	0	1							
Total Class Credits/Semester	-0.344	-0.039	1						
Environment Class in Korean	-0.019	-0.026	0.284	1					
Ecology Class in Korean	-0.009	0.022	0.294	0.533	1				
Environment Class in English	-0.032	0.005	0.091	0.066	0.013	1			
Total Sum of Env. Classes	-0.018	-0.019	0.309	0.989	0.648	0.087	1		
Total Students	-0.021	0	0.758	0.303	0.293	0.099	0.328	1	
Adjusted Tuition Fee	-0.039	0	-0.118	-0.296	-0.111	0.155	-0.282	0.025	1

Table 3 Impacts of Seoul and non-Seoul locations between top 20 universities and the rest of 41 universities

		OLS						Heckman Selection					
		Model 1		Model 2		Model 3		Model 4a, OLS			Model 4b, Probit		
Group	Variables	Coeff	Std Err	Coeff	Std Err	Coeff	Std Err	Coeff	Std Err	Z-stat	Coeff	Std Err	Z-stat
	Intercept	57.328***	7.211	3.627	9.741	32.979***	6.792	34.055***	5.961	5.71	12.09	0	.
Year	2016	-0.286	2.057	-1.138	3.436	-0.842	2.157	-1.659	2.052	-0.81	.	.	.
	2017	-2.327	2.84	3.471	3.344	0.527	2.311	-1.514	2.479	-0.61	.	.	.
Rankings 21- 61	Universities	-13.528***	2.827	-24.029***	5.584	-12.693***	2.479	-10.618***	2.771	-3.83	-6.277	0	.
Location	Seoul	-	-	-	-	5.626***	1.749	6.865**	2.684	2.56	1.134***	0.232	4.88
Ownership	State-funded	-14.684***	4.347	17.846***	7.463	2.197	4.803	9.954**	4.225	2.36	-6.140***	0.282	-21.74
	Private	-29.939***	7.04	1.942	5.605	-8.361	3.747	-10.041	4.123	-2.44	-5.69	0.224	-25.43
Semester	Fall	0.41	1.775	-1.625	2.774	-0.655	1.751	-1.14	1.675	-0.68	.	.	.
Class	Total Credits	-0.001	0.001	0.002**	0.001	0.001	0.001	0	0.001	0.21	.	.	.
Finance	Tuition with CPI	0	0.002	0.002	0.001	-0.002*	0.001	-0.002**	0.001	-2.19	.	.	.
Size	Total students	0.000*	0	0	0	0.000***	0	0.001***	0	4.07	0.000*	0	1.7

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Table Continued

		OLS						Heckman Selection					
Observations		180	.	186	.	366	.	366	.	.	366	.	.
Censored obs		.	.	.	.	.	.	62	.	.	62	.	.
Uncensored obs		.	.	.	.	.	.	304	.	.	304	.	.
R-square		0.517		0.369		0.339		.	.	.	.	.	.
Adjusted R-square		0.492		0.336		0.32		.	.	.	.	.	.
Goodness-of-fit assessment	Lambda	.	.	.	.	.	.	11.107*	6.586	1.69	11.107*	6.586	1.69
	Rho	.	.	.	.	.	.	0.716	.	.	0.716	.	.
	Sigma	.	.	.	.	.	.	15.52	.	.	15.52	.	.
	Wald Chi-square	.	.	.	.	.	.	243.33	.	.	243.33	.	.

Note: Significant at less than 1% *** , 5% ** and 10% * levels of significance. The year of 2015, spring semester, universities rankings from 1 to 20 and ownerships with sum of state-funded, public-funded and special law corporation are references. Standard errors are corrected for heteroscedasticity.

Table 4 Impacts of three different ownerships between top 20 universities and the rest of 41 universities

		Model 5		Model 6		Model 7		Model 8	
Group	Variables	Coeff	Std Err	Coeff	Std Err	Coeff	Std Err	Coeff	Std Err
	Intercept	51.343***	6.625	-132.504***	25.231	32.722**	14.468	31.727**	11.132
Year	2016	1.47	1.909	0.153	3.594	-0.511	1.551	-0.862	1.946
	2017	-1.036	2.06	9.202	6.43	-0.735	1.981	-1.214	2.251
21- 61 rankings	Universities	8.459	8.884	-41.681***	7.167	-11.352***	1.863	-14.980***	2.29
Ownership	State-fund							2.48	6.15
	Private							-12.081**	4.93
Province	Gyeonggi					-23.733***	3.427	13.771	9.435
	Gyeongbuk					-36.673***	4.414	-4.043	9.036
	Gwangju			-4.253	2.821			-23.187***	6.437
	Daegu			20.286***	4.275			5.234	6.757
	Daejeon			41.473***	3.402			5.011	9.464
	Busan			43.134***	4.654	-32.064***	5.158	21.637***	7.663
	Seoul	31.462**	9.703	-26.778**	9.027	-21.770***	3.376	13.805	8.935
	Sejong					-29.120***	3.538	9.801	9.543
	Ulsan	-8.325***	1.845					-18.939*	9.846

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Table Continued

		Model 5		Model 6		Model 7		Model 8	
	Incheon					-14.320***	3.848	16.409*	9.149
	Chungnam					-20.352**	7.127	8.751	9.406
	Chungbuk			17.751	7.084			5.484	10.178
Semester	Fall	-3.936*	1.41	-2.11	3.098	0.02	1.323	-0.822	1.598
Class	Total Credits	0	0.001	0.003	0.002	0	0	0	0.001
Finance	Tuition with CPI	-0.006***	0.001	0.040***	0.007	0.002	0.002	-0.002	0.002
Size	Total students	0	0	0	0	0.000**	0	0.001***	0
Obs		30		72		264		366	
F-value		232.31		92.87		57.6		78.27	
R-square		0.983		0.855		0.42		0.468	
Adjusted R-square		0.975		0.823		0.387		0.435	

Note: Significant at less than 1% ***, 5% ** and 10% * levels of significance. The year of 2015, spring semester, universities rankings from 1 to 20 and Gangwon are references. Standard errors are corrected for heteroscedasticity.

Political implications

South Korea has long been famous for its zeal for education. Education, many Koreans believe, has been the most critical factor for social mobility. For upward social mobility to be achieved, the university entrance exam is unarguably seen as tantamount for future success. Exam results largely dictate which universities students will attend. Earning a decent score on the entrance exam is horrifyingly tough, which can be seen as a great distress and torment for students. Getting admitted to prominent universities requires years of determination, self-sacrifice, and dedication toward one's studies. It is mainly because distinguished universities guarantee high-paying and secure jobs for the near future. This further illustrates the relentless focus being placed on education, especially on university entrance exams. Sizeable numbers of well-known universities which, heartbreakingly many Koreans deeply consider, and which largely define the future outcome for younger generations, are situated in Seoul. With the prevailing long- held beliefs about Seoul, there came a multitude of convenient amenities, educational facilities and entertaining services. With the various types of benefits embedded in Seoul, schools located in Seoul can be great collateral beneficiaries. Seoul attracts people, money, finance, sport events, art exhibitions and seemingly countless wonderful activities. This phenomenon, socially and economically, implies an ever-growing discrepancy between Seoul and non-Seoul provinces. Public facilities and other amenities located throughout South Korea vary greatly based on province. These disparate public facilities produce differently shared values among the same generations in contemporary society. A huge disparity negatively creates a social chasm among members of the same society. This imposing gap produces greater levels of discrimination towards others who share different experiences and values.

This paper suggests an urgent need for decentralizing Seoul in general. As an attempt to decentralize Seoul, Sejong city, located near Seoul, has experienced comprehensive development as a means to combat this issue. A few years ago Sejong city had witnessed the emergence of various types of economic, political and societal research complexes. At the heart of its attempts, critical political arenas were supposed to be built, but this turned out to be futile because a disproportionate amount of political clout still exists in Seoul. This case study further demonstrates that Seoul continues to dominate South Korea's identity, both culturally and politically. Education is no exception. Seoul needs to be decentralized in the hope of affording future leaders of other provinces with the same educational opportunities it currently experiences. Shared values within Korean society need to be diffused so all future generations in Korea, regardless of location, have the right to expose and embrace environmentally-friendly beliefs, behaviors, values and knowledge. Politics should assume responsibility for equalizing and offering these significant values.

Conclusion

An introduction to green courses is mainly intended for understanding the fragile environment and the significance of environmental protection. In order to promote environmental awareness, education is a powerful and easy tool that can be used to nurture environmental protectors in society.[32] Education also greatly helps create a healthy future for generations to come. Being fully aware of the environment's ever-declining health status, humans are prone to feel discouraged. Yet it is this knowledge that drives ordinary citizens to take action against environmental degradation. Koreans must work together to promote environmental sustainability on a

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wider scale in the hopes of leaving a cleaner environment for future descendants. Environmental education is one of the most successful and effective methods to develop and influence behaviors, values and knowledge in society. This paper identified which explanatory factors noticeably played a role in opening environmental classes at higher education institutions. This paper found out that numbers of environmentally-caring courses are positively influenced by several explanatory variables – provinces, ownerships, total tuition fees and total number of students. Regression Models help to better identify geographical importance in South Korea. Seoul, the capital of South Korea, plays a vital role in attaining large numbers of environmental classes. Differences between prestigious universities in Seoul and prestigious universities outside of Seoul are numerically visible. Also, ownerships determine the total number of green courses offered at universities. Small variation exists among private schools across the Korean peninsula, whereas colossal variation exists among state-funded schools.

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Conflicts of interest

The author declares that no conflict of interest exists in publishing this article.

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