Effects of Democratic Parenting and Teaching Activities on High School Students' Global Citizenship: A Multilevel Structural Equation Model with Student Factors as Mediators

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Abstract: The objectives of this research included to study the effects of democratic parenting and teaching activities on global citizenship according to logical reasoning in making decisions on political attitudes among 2,286 students from 80 classrooms. The research instruments included 1) a set of rating- scale questionnaires for students with 92 items, having the reliability as 0.968 and 2) a set of rating- scale questionnaires for teachers with 23 items, having the reliability as 0.893. The results of the multilevel structural equation model analysis revealed that the factor of political attitudes was the most important in describing each student's global citizenship with the explanation of the variance with democratic parenting and the analysis of applying the reasons in students' decisions was as 68.50%. Teaching activities affected positively on global citizenship both directly and indirectly through statistically significant factors with and together explained the variance of the global citizenship of each student by 84.00%. These findings highlight the importance of developing and fostering political attitudes that affect students' global citizenship through parenting and teaching activities covering the development of relevant factors as discussed in the Discussion and Implementation Part.

Keywords: *Global citizenship, democratic parenting, teaching activities, political attitude, determination.*

Introduction

Global citizenship is an important characteristic of humans who coexist in all societies. They know their roles as citizens of the global community including understanding the way of life in society. Moreover, they have love, bond, and concern for others. They sympathize with other people who have suffered or difficulty. Furthermore, they desire to help others, even if people do not exist in their own social group or country. Besides, they help society become aware of participation and sacrifice, consider equality and social justice under cultural, ethnic, and religious diversity (Reysen & Katzarska-Miller, 2013a). The student's global citizenship characteristics can be observed through behavioral expressions. But sometimes it cannot be observed intrinsically, such as political attitudes and logical reasoning, all of which are students' inner feelings. These things can occur as inheriting some from parenting and cultivated by teachers (Baumrind, 1971; Pintrich, 2003).

The family is an important sub-unit in the nurturing of global citizenship of students, which is the beginning of the close relationship that children are born at birth. The family has to be responsible for promoting the development of a complete human quality for members by using family social processes to refine family members to behave desirable (Baumrind, 1971). When the students are in school-age entering the context of refinement from the school, teaching activities become more important roles than families. Therefore, the design through various activities in the curriculum for students to be developed, such as technical skills, process skills, international education, language, and culture, unselfishness cultivation are vital for preparing them to be global citizens in the future (Zinser, 2012). Additionally, the school environment is another important factor affecting global citizenship by creating a suitable atmosphere for learning with the application of modern technology media. It includes knowledge, experience, democracy through the teaching process, encourages students to know their roles and have responsibilities from a small social model to create good qualities of the global citizenship (Levin & Kratochwill, 2012).

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It is not only specific educational activities but also the educational environment and democratic parenting affect only global students' citizenship. The previous findings have concluded that nonacademic factors within the students have involvement in some part. The synthesis results showed that political attitudes, determination (such as Rattananuson, 2013; Ryan & Deci, 2017; Suvarnakuta, 2014) have gained attention and are applied in research studies to predict being the global citizenship of students. It is found that each factor is closely related to each other. Moreover, it has direct and indirect effects on global citizenship, both from the same variable level and the different levels (Damrongpanit, 2019b; Ontas & Koc, 2020; Snijders & Bosker, 1993).

However, these conclusions are based on the link between the results of a separate study and study among different population groups, different contexts, and statistical methods. Therefore, the above conclusion is not able to clearly show the results as follows: 1) when democratic parenting and teaching activities develop, how much the global citizenship will continue to be influenced by these factors, and 2) how democratic parenting and teaching activities will lead to global city development when considering common effect from student factors.

Literature Review

Global Citizenship

The characteristics of global citizenship are cognitive behaviors and analytical behaviors allow individuals to organize and understand the complexities of different societies, inequality being ready to participate in problem-solving. The acceptance of cultural differences, races, religions is considered members of the world as well Asil et al. (2020), Zinser (2012), and Reysen & Katzarska-Miller (2013b) found that the study of the global citizenship characteristics of students is diverse, both the same and different, such as the development of worldly identity traits to serve the reality and apply to improve, develop, promote and cultivate the global citizenship characteristics. Therefore, being a global citizen is one goal of education, wanting to develop citizens in each country to have desirable characteristics, to providing education talented, good, and happy citizens according to the Declaration of Educational Management by The United Nations Educational, Scientific and Cultural Organization (UNESCO) in the 21st century (Agenda, 21). It aims to learners to Learn to Know, Learn to be, Learn to do Learn to live together to create desirable qualities as the global citizens, as well as to develop the national youth entering the 21st-century world (Le Bourdon, 2018). The characteristics of the global citizenship can be summarized in 5 aspects: 1) having the behavior of sympathy for one's own social group, 2) helping each other within the group and having a desire to help others, even if they do not belong to their own group, 3) having a bond, concern for one another, 4) admiring and caring for multiculturalism, and 5) promoting human rights and social equality (Arnett, 2002; Le Bourdon, 2018; Reysen & Katzarska-Miller, 2013b; Zinser, 2012).

Democratic Parenting

Parenting behavior is generally divided into two broad dimensions as 1) The controlling dimension is the parents' agreement between the parents and children to follow or some parents allow the children follow only some part, and avoid to influence the control of the children, 2) The responsive dimension is the parent's response to the needs of the children. Some people will accept, understand, and meet the needs well provide children the opportunity to think and decide for themselves. According to the 2 dimensions above, parents will treat children through various methods to be consistent with the development of children in each age, in each environment continuously since birth and treating children with fairness, not indulging and overly strict, have reasons in response to the needs of children with physical health, good mental health and appropriate behavior (Baumrind, 1971). Scholars have proposed a parenting model that promotes the global citizenship characteristics, such as parenting that encourages children to develop according to maturity by allowing children to be free as they should be (Laura & Flanagan, 2012). However, at the same time, they will define the behavior of children and be strict for obeying and following reasonable guidelines (Taraban & Shaw, 2018) by giving love, warmth and provide yourself the opportunity, listening to reasons and encouraging participation in family thinking and decision making (Potter, 2010).

Teaching Activities

Teaching activities help strengthen the global citizenship characteristics of students through the teachings of teachers, together form group agreements to nurture the acceptance of the results of their work and develop working processes according to their roles and responsibilities, using their own knowledge and skills, creating skills, analyzing problems and solving problems using reasoning that result in successful work (Pintrich, 2003). Moreover, teachers need to cultivate the habit of learning from libraries and various research sources, follow the news, events, and changes in daily life, gain experiences and skills in line with what is needed to develop students to understand, act under the duties of being good citizens. The students need to have good values and maintain traditions and culture, live together in a peaceful society, and understand the political system and government in today's society. Additionally, they have to adhere to faith and uphold the democratic system in order to absorb the development, concern about the mutual benefits, and be part of the complete global citizens (Suvarnakuta, 2014). The previous research results indicated that teaching activity factors are important tools for teachers to help transfer knowledge and instill awareness into one's

own role. The living skills and experience enhancement, the development of thinking potential, morality, ethics, and good values are very crucial to global citizenship (Hrebiniak & Alutto, 1972; Ryan & Deci, 2017).

Environment of Discipline

The school environment is another factor that affects global citizenship. The schools support modern and complete teaching and learning media, resulting in inconvenience within the school since the school is a model of a small society, helping students to learn the roles, duties, good members of the organization, administrators. Importantly, teachers can reach the student easily; therefore, they assist to enlighten good qualities of global citizenship (Levin & Kratochwill, 2012). Moreover, the other important matter, school administrators encourage internal and external people to participate in determining the educational directions to drive the organization to create a democratic atmosphere. The finding revealed that the teachers' characteristics include smiling, friendliness. They also have the good relationship within the organization. Moreover, the administrators support and encourage the teachers in instructional management for the students with quality resulting in the happiness of the students in learning. Additionally, the teachers have the readiness to develop themselves with the full potential (Howell & Avolio, 1993; Ryan & Deci, 2017b).

Political Attitudes

Attitude is a psychological condition that arises from experiences, various stimuli around the person, not inherited as a result of genetics. It causes different personalities. This can happen through parenting and nurturing, such as political attitudes, religious attitudes, or attitudes arising from events that affect the memory of oneself or others (Gibson, 2000). At the school-age, the students will receive socialization, culture, and traditions from the teachers, and imitate people who are important or influential in society, accept that attitudes or values as their own (Kabakci, 2019; Perloff, 2010). The past findings pointed out that people do not have prejudices against anything by instinct. As time passes by, they will start to have attitudes and learning to hate or conflict with one's feelings based on experiences through rational thinking and decision making to find alternatives or best practices. Then, they search for a reasonable conclusion (Albarracin et al., 2011).

Determination

The rational decisional making theory can be explained by 3 important aspects which are 1) Input: the received information must be considered carefully in all aspects, able to utilize experiences in analysis, and examine the data sources to support rational decisions, 2) Process: motivation is the drive to control feelings, determine directions and goals of decisions and 3) Output: the occurrence of motivation is both internal and external. It is the relationship between reasoning and decision making (Ryan & Deci, 2017). The rational decision making is one-factor influencing global citizenship concerning political attitudes arising from experience, experience through parenting, and instruction. There is support from the past research results that showed that abstract reasoning factors cannot be observed from outside. It must use logic to make decisions in everyday life for all human activities arising from contemplation and reasoning. It is one of the important things that help to balance ideas with logic, complete proceeding, and benefit (Elster, 1991).

The current study

The document synthesis result led the researcher to link that: 1) Democratic Parenting and democratic teaching are connected to the characteristics of the global citizenship covering 5 important factors: the responsibility of the duties (RESPON), values of ethnic diversity (VALU), empathy within the group (EMPAT), help within the group (HELP), and social justice (SOCIAL). Moreover, it found the factors that affected the global citizenship including 1.1) democracy parenting factor (DEMOC), 1.2) teaching activity factor (TEACHING), 1.3) educational environment factor (ENVIRON), 1.4) political attitude factor towards (ATTI), and 1.5) logic for decision making factor (DECTER), 2) ATTI and DECTER were both direct and indirect factors for the global citizenship. Consequently, after connecting the above reasons, it became a hypothesis model that described the relationship structure between variables as a Multilevel Structural Equation Model. It specified the research hypothesis as this model can be applied to explain the relationship based on the empirical data.

Methodology

Research Goal

The purposes of this research were to 1) study indicators and factors of global citizenship measurement of high school students. 2) develop and validate the structural equation multilevel model of factors affecting to global citizenship of high school students.

Sample and Data Collection

The research participants employed 1) 2,286 students in the 9th grade, 782 male students and 1,504 female students, and 2) 80 teachers as 17 male and 63 women. Both groups were presented in 5 extra-large schools, 6 large schools, 11 medium schools, and 8 small schools. The number of students per room varied between 20-25 people by using Stratify Random Sampling from the population of 58,807 people from 142 schools in the northern region under the Office of the Basic Education Commission, Ministry of Education.

Research Instruments

Global Citizenship (GLOBAL) was measured by the questions of the 5-point likert scale (1 = students almost do not agree with the statement, 5 = students strongly agree with that statement), 55 items, measuring scope in 5 areas 1) responsibility of the duties (RESPON) refers to the behavior of students expressing their roles within society and the world as well as participation in political changes including living appropriately and with quality within the society and the world, consisting of 12 items (for example, I think that different physical characteristics are not a problem in coexistence in society.), 2) values of ethnic diversity (VALU) means the feeling of being together, supporting one another, try to interest, and learn about the different conditions of each group in order to be able to live in peace with 14 items (for example, different cultures are charming and interesting to learn.), 3) empathy within the group (EMPAT) refers to the characteristics of students that demonstrate understanding and access to the basic needs of different groups of people in lives, feel the value of yourself and others in society. They can understand with others, understand the roles of citizenship affecting the coexistence of all parties under cultural differences, beliefs, ways of life, traditions in a normal way with 11 items (for example, I believe that everyone has value and dignity in themselves.), 4) help within the group (HELP) is to understand the needs of others and able to provide full assistance including can rely on each other in a friendly manner with 6 items (for example, when a friend or acquaintance has inappropriate behavior, I will warn with good intentions.), 5) social justice (SOCIAL) refers to feelings of rights, equality and justice in expression to benefit, including the roles of the giver as part of society and the world with 12 items (for example, I am ready to fight for social justice). The results of the experiment using the tool on 130 high school students who were not a sample group found that r_{xy} valued between 0.153 to 0.704. As the reliability of the Cronbach's Alpha (α) in each component was 0.808, 0.801, 0.792, 0.846 , and 0.832, respectively.

Democratic Parenting (DEMOC) measured from 5-point Likert scale questions (1 = students almost do not agree with that statement, 5 = students strongly agree with that statement). There were 16 items according to the definition of measuring variables. There are 4 scopes of measurement: 1) Warmth in the family (DEMO1) means family members being ready to listen to all the problems of family members, and use reasons rather than emotion to solve problems. When family members succeed, they will gather to rejoice with 4 items (for example, my family warns people for reasons more than emotions), 2) Freedom of thought and reason (DEMO2) means to support in favor and aptitudes of family members as well as an ability to discuss all matters. There are reasons to support various things. There are 4 items (for example, parents support me doing things according to my favor and interests.), 3) Family equality (DEMO3) means everyone in the family is involved in various decisions while also listening to the opinions of members, give everyone rights and equality. There are 4 items (for example, my parents allow all family members to participate in the decision.), 4) Care and guidance (DEMO4) means acceptance and encouragement of studying, working, paying attention in all family's issues, and always keep observing the behavior around to find prevention, 4 items (for example, even if my academic performance is not as expected, my parents will accept and encourage.) The try-out pointed out that item discrimination in accordance with the item-total correlation method (r_{xy}) had values between 0.407 to 0.655. As the reliability with Cronbach's Alpha (α) in each element had the value as 0.673, 0.751, 0.796, and 0.794, respectively.

Teaching activities measured from the 5-point likert scale (1 = disagree with the statement, 5 = strongly agree with the statement). There were 12 items according to the definition of measuring variables. There are 4 measurement scope: 1) Thinking of common interest than individual (TEACH1) means awareness of one's own actions that affect school members, reduce selfishness, sacrifice physical and mental energy for the same goal with 3 items (for example, you encourage students to be aware of inappropriate behavior that causes an impact on the whole.), 2) Accepting the opinions of others (TEACH2) means working in a group, opinions expression, discussion, always brainstorming, and group members accepting groups' discussion with 3 items (for example, you organize teaching activities by providing work on groups regularly.), 3) Knowing their roles and duties (TEACH3) means everyone has demonstrated their potential and ability to meet the target although there are differences with 3 items (for example, you organize events each time to train students to assign duties.), 4) Accepting and respecting the rights of a person (TEACH4) means having solidarity, no disharmony, no discrimination resulting in peace with 3 items (for example, your students have unity and harmony within the group.). The try-out indicated that item discrimination following the item-total correlation method (r_{xy}) valued between 0.153 to 0.637. The reliability based on Cronbach's Alpha (α) in each element had the value as 0.781, 0.715, 0.559, and 0.772, respectively.

Environment of Discipline measured from 5-point Likert scale (1 = disagree with the statement, 5 = strongly agree with the statement). There were 11 items according to the definition of measuring variables. There is 3 scope of measurement: 1) Relationships with friends, teachers, and administrators (ENVIR1) means engaging in activities with fellow teachers and able to consult with all teachers when encountering problems. They have good interaction with people around and get the praise when having success with 4 items (for example, your students are happy every time they play sports or various activities with friends and teachers.), 2) Conducive physical characteristics to the global citizenship (ENVIR2) means the location of the school located in a tourist destination with high-speed internet and display signs with clear symbols, support democratic activities continuously with 4 items (for example, students in schools can access the Internet with every smartphone in order to catch up the global news.), 3) School student equality (ENVIR3) means that there is a student council to express opinions, and all students are equal, have the right to freely express opinions with 3 items (for example, the administrators and teachers respect the ideas of students presented through the Student Council.), The results of the trial found that the item discrimination according to the item-total correlation method (r_{xy}) valued between 0.163 –to 0.571. As the reliability of the Cronbach's Alpha (α) in each component was 0.572, 0.748, and 0.773, respectively.

Political Attitude measured using the 5-point likert scale (1 = students almost disagree with the statement, 5 = students strongly agree with the statement), consisting of 9 items according to the definition of measuring variables. There are 3 measurement scope: 1) Knowing the value of maintaining culture (ATT1) means learning from ancestors, adult family, or other people, which is a tradition that has been accumulated and see that it is a good thing to implement. It may be broadcasted in various forms of activities, the cultural club in the community, organized field trips and broadcasted through various media, 3 items (for example, I think that each country's cultural traditions are a legacy that reflects the way of life should continue to maintain.), 2) Attention to political participation (ATT2) means listening to conflict of political views by not using emotions to make decisions, and have different political beliefs with the benefit of society and the world with 3 items (for example, I can listen to political opinions that conflict with me without feeling angry.), 3) Understanding economic problems (ATT3) means understanding the impact on the global economy from the political conflict and the governing together to affect the international trade exchange with 3 items (for example, I think the international political conflict can affect the world economy.). The results of the trial showed that the item discrimination according to the item-total correlation method (r_{xy}) valued between 0.359 to 0.622. As the reliability of the Cronbach's Alpha (α) in each component was 0.64, 0.650, and 0.773, respectively.

Determination measured from 5-point likert scale (1 = students almost disagree with the statement, 5 = students highly agree with the statement). There are 12 items based on the definition of measuring variables. with measurement scope in 3 aspects: 1) Choosing Media perception (DEC1) refers to behaviors that express decisions, believe the information in the social world, have knowledge and ability to make decisions from media, consisting of 3 items (for example, before believing in various matters, I will find knowledge to make decisions.), 2) Media decisions affecting ideas (DEC2) mean a variety of information and reliable references. It can analyze and consider all data completely with 3 items of information (for example, when I receive news I will search for reliable information from a variety of sources to determine the facts.), 3) Knowing to reason and thinking (DEC3) means thinking before doing anything that contains reliable information, not relying mainly on his own thoughts, and predict the future circumstance with 3 items (for example, I think carefully before saying or doing something.), 4) Ability to distinguish good conscience (DEC4) means being able to find the best way to solve problems without prejudice in expressing opinions, have an idea developed with intelligence with 3 items (for example, when a problem occurs, I will think of a solution and choose the best way to solve that.) The results of the trial found that the item discrimination according to the item-total correlation method (r_{xy}) valued between 0.224 to 0.614. As the reliability of the Cronbach's Alpha (α) in each component was 0.486, 0.680, 0.668, and 0.766, respectively.

Data Collection

The researcher organized the instrument into 2 issues for collecting data with students and teachers. 1) Students' data collection utilized the tool that was the student questionnaire collecting variables for Global Citizenship, Democratic Parenting, Political Attitudes, and Determination, a total of 92 items. They had freedom for time to answer freely with verbal information and there are explanations about the tool. It included the nature of responses before collecting data as well as the clarification of the rights of the respondents to stop providing information at any time when the students are unwilling or boring. This tool was utilized to collect data from each student to complete within 4 weeks. The data collection presented that the researcher distributed 2,700 questionnaires and received 2,330 questionnaires returned as incomplete questionnaires due to not answering all 44 pages. Then, there were only 2,286 student data available for analysis with 2 months for analysis.

2) Teachers' data collection tool was the teachers questionnaire to collect variables for Teaching Activities, Environment of Discipline was a questionnaire that contributed to 23 items with no time limit for answering. They were explained how to respond and the rights of the respondents, as well as student information provision. The data

collection's results pointed out that the data were returned from 80 teachers, most of which took approximately 30 minutes to answer. The questionnaires were complete.

Analyzing of Data

The analysis of the research data was analyzed using the Multilevel Structural Equation Model which is appropriate for forecasting the values of the variables followed by the independent variables that considered the grouping of the data providers into independent sub-groups. Each student was accounted in the same classroom and the same school, but in a different class with other students and other schools. It resulted in differences in characteristics and predictive factors in each group (Damrongpanit, 2019a). It was also an analytical method to get the standard error (SE) which was not lower than it should be. The researcher designed the model and analysis in 2 levels: the Student Level, consisting of 4 latent variables (GLOBAL, DEMOC, ATTI, DECTER), measured from 11 manifest variables, 2,286 units of analysis, and the Classroom Level consisted of 4 latent variables (GLOBAL, TEACHING, ENVIRON, ATTI, DECTER). They were categorized as a class-based latent variable based on the measurement definition as TEACHING which was measured by 4 manifest variables and the latent variables of each student were from the aggregate of observed variables at the student level to study ATTI effect and DECTER effect on the global citizenship through the latent variables of students that aggregated. Each variable was measured by the variables observed at the existing student level. It resulted in 80 units of analytical units in the classroom level and the average size of classroom consisting of 28.57 students.

After examining the completeness of the obtained questionnaires, the researcher coded the data and calculated the average of the questions in accordance with manifest variables at the student level of 11 variables and in the Classroom Level of 7 variables. Later, the researcher studied the distribution of data of all 18 manifest variables. It found that the Skewness and Kurtosis values were not more than -2 to +2, indicating that the data had a normal distribution trend. After that, the data was brought into the multi-level analysis. The important statistics for consideration were 1) intra-class correlation (ICC) indicating the similarity of students in the same classroom than students in different classrooms, and computed from the proportion of variance of variables between groups divided by total variances from dependent variables with values between 0 and 1. In the case that group size was greater than 15, the ICC used was over 0.10, 2) the goodness of fit indices showed the consistency between the correlation matrix of the correlation structure between variables in the hypothesis model and the correlation matrix of the correlation structure between variables from the empirical data. It comprised of the statistical criteria and group for consideration which were Relative Chi-square or the ratio between Chi-square (χ^2) to a degree of freedom (df) should not exceed 5 (because the model was complex), Comparative Fit Index (CFI), and the Tucker-Lewis Index (TLI) should be greater than 0.95, the Root Mean Square Error of Approximation (RMSEA) should be less than 0.06 and the Standardized Root Mean Square (SRMR) should be less than 0.08. For the study of mediated effects, consider the use of indirect effect as across the latent variables by writing data analysis commands, and utilized the Maximum Likelihood Estimation with Robust Standard Error (MLR) method, which was robust to non-normality and non-independence of observation according to the Mplus 7.4 program.

Finding/Results

Preliminary data analysis found that the manifest variable had a mean between 3.731 (DEC1) to 4.383 (ENVIR1). The standard deviation was between 0.190 (TEACH3) to 0.806 (ATT3) for the distribution, the skewness was between -1.130 (ENVIR2) to 0.290 (TEACH3) and Kurtosis was between -0.829 (ATT3) to 1.265 (ENVIR2). All values indicated that the data was likely to spread as normality. In addition, the KMO Measure of Sampling Adequacy = 0.918 and Bartlett's Test of Sphericity were equalized 29051.316, df = 561, p = .000, which rejected the null hypothesis, indicated that the manifest variables were interrelated and the correlation matrix of these variables was not identity matrix. The overall relationship between the variables of the same level had a positive direction at moderate to high levels while the relationship between the variable in most levels, the positive direction was low as a whole.

The multilevel structural equation model revealed that the ICC values of all five manifest variables were between 0.092 (VALU) to 0.112 (SOCIAL) .It presented that the variance of the mean of each variable between the 80 groups of students was sufficient to a study of causal relationships with multilevel analysis. Additionally, the model provided Model fit information, which was $\chi^2 = 362.886(323)$, χ^2/df =1.120, CFI = 0.997, TLI = 0.997, RMSEA = 0.007, SRMR-Within = 0.012, SRMR-Between = 0.412. This was in accordance with conformance criteria and the empirical data, except for the excess value of SRMR-Between, shows that the assumptions of the model tended to be in line with the empirical data.

As the consideration of the parameters in the Student Level, the factor loadings of each latent variable were positive and were significantly different from zero at the .01 significant level .It indicated that all manifest variables can be used. It could have the clear latent variables measurement by standardized factor loadings of DEMOC = 0.505-0.590, DECTER = 0.237-0.682, ATT = 0.531-0.543, GLOBAL = 0.426-0.755, details as in Figure 1.

Analysis of the standardized path coefficient of each factor, it was found that all values were positive. The total effect of DEMOC GLOBAL was the highest (0.816 **) which had indirect effect (total IE = 0.566 **) greater than the direct effect slightly (DE = 0.250 **) while ATTI (DE = 0.465 **) had a greater total effect on GLOBAL than DECTER (DE = 0.138 **).

Considering the effect of DEMOC on latent variables at all Student Levels, it revealed that it was a factor that had a total effect on GLOBAL (TE = 0.816 **). There was the indirect total effect 1 time of direct effect (total IE = 0.566 **, DE = 0.250 **). Additionally, as the indirect effect, the finding showed that DECTER, ATTI was the mediated variables that transmitted the effect between DEMOC and GLOBAL with statistical significance on every path. The path with the highest transmitted was DEMOC→ATTI→GLOBAL (IE=0.450(**, followed by DEMOC→DECTER→GLOBAL (IE=0.116(**, respectively. However, the factors and the structure of the relationship between all 3 factors together explained the variance of GLOBAL for each student was as 68.50%.

According to the analysis of the Classroom Level, it showed that each loading factor had a positive value and was significantly different from zero at the . 01level of significance, indicating that variables were observable both by student aggregation and observable variables of each. The classroom was suitable to be a substitute for measuring latent variables with the standardized factor loading of TEACHING = 0.784-0.414, ENVIRON = 0.816-0.386, DECTER = 0.943-0.492, ATTI = 0.984-0.363, GLOBAL = .0.971-0.950The details are as in Figure .1

Effect values in standard scores between the structure of DECTER, ATTI, GLOBAL variables between the Student Level and the Classroom Level models showed that the total effect of DECTER→GLOBAL at the Student Level was approximately 1time lower than Classroom Level)TE_{sdst} =0.138**, $TE_{classroom}$=0.278**). It was consistent with the total effect of ATTI →GLOBAL at the Student Level had approximately 2times lower than the classroom)$TE_{student}$ =0.465**, $TE_{classroom}$=0.811**). Even though there were differences in the size of the effect between the two levels of analysis results, all the effect values in the model still presented the direct significance with the .01 level, both direct and indirect effects. Therefore, it indicated that the effect of factors and structural factors explained each student differed from the factor structure describing the students in each class.

Considering the effect of TEACHING on latent variables at all Student Level, It showed as a factor having a total effect on GLOBAL (TE = (** 0.505, with a slightly less total indirect effect than direct effect slightly (total IE = ** 0.247, DE = .(** 0.258Besides, as the indirect effect indicated that DECTER and ATTI were the variables that influenced statistically between TEACHING and GLOBAL on all paths. The most mediated path was TEACHING→ATTI→GLOBAL (IE=0.186**), followed by TEACHING→DECTERB, respectively. However, both factors and structure of the 4 factors were significant and jointly explained the variance of GLOBAL for the Classroom Level by 84.00%. The details showed as in Table 1 and Figure 1.

Table 1. Standardized regression coefficients for multilevel structural equation modeling

Path Directions	DE	IE	TE
Student Level			
DEMOC → GLOBALW	0.250**	0.566**	0.816**
DEMOC → DECTERW →GLOBALW		0.116**	
DEMOC → ATTIW →GLOBALW		0.450**	
DECTERW →GLOBALW	0.138**		0.138**
ATTIW → GLOBALW	0.465**		0.465**
Classroom Level			
ENVIRON →GLOBALB	-0.238**	0.353**	0.115**
ENVIRON →TEACHING →GLOBALB		0.180**	
ENVIRON →TEACHING →DECTERB →GLOBALB		0.043**	
ENVIRON →TEACHING →ATTIB →GLOBALB		0.130**	
TEACHING →GLOBALB	0.258**	0.247**	0.505**
TEACHING →DECTERB →GLOBALB		0.061**	
TEACHING →ATTIB →GLOBALB		0.186**	
DECTERB →GLOBALB	0.278**		0.278**
ATTIB →GLOBALB	0.811**		0.811**

Note: **p < .01

The researcher speculates that two important reasons were: 1) The relationship between DECTER, ATTI and GLOBAL have similarity in both levels, and 2) The structure of the relationship between the Student Level and Classroom Level is s a structure to study the transmission effect of DEMOC and TEACHING, which passes through student variables. It regards as DEMOC and TEACHING are the factors in the Student Level and the Classroom Level respectively, in which specific definitions appear in both levels of the model. Since it does not need to investigate the structure of all classroom and teacher variables theoretically, therefore the SRMR-Between values are higher than the criteria as shown. Consequently, referring to the opinion of the researcher. Therefore, according to the researcher's perspective, the nature of such data is acceptable. This is because the research objectives did not emphasize the collection of classroom and teacher variables. They were not identified within the conceptual framework. This may result in the model being more complex than necessary (Kline, 2011).
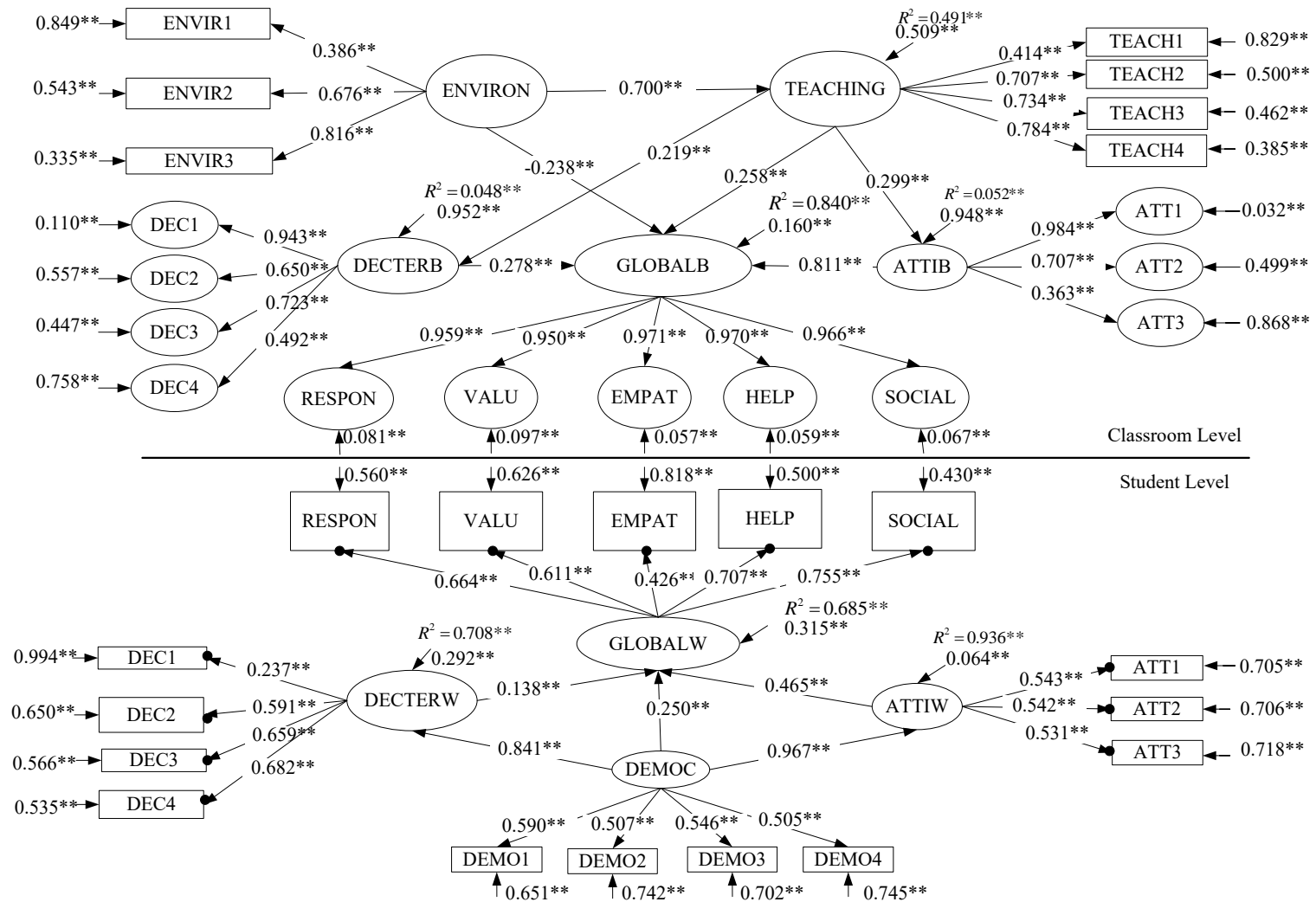
Figure 1. Standardized coefficients for multilevel structural equation model.

Note: 1) **p < .01,

2) The black dots indicate the mean of the variable within level for using as a dependent variable in between level.

3) r^2 = Coefficient of determination

Discussion

The overall analysis results of the Multilevel Structural Equation Model shows that the model of the hypothesis is consistent with the empirical as expected due to the selection of important variables and based on the findings confirming the causal relationship with the global citizenship both directly and indirectly. As a result, statistically significant values of all positive effect values are found, but the relationship between the structure of the Classroom Level found one variable with negative effect value. Moreover, as the design of data collection, the researcher specifies a sufficient sample size for parameter estimation and utilizes the multilevel analysis techniques being suitable for variable structures that are hierarchical levels. Although the overall model works as expected, the observations from the SRMR-Between values have still shown the excess of criteria.

The findings based on the model of the Student Level confirmed the conclusion from the research which found that the most crucial variable in the development of global citizenship is the Policy Attitudes as it has an influence on both global citizenship and other factors at the same time. It means that developing students with the global citizenship characteristics is not only to promote understanding of methods of raising each student but also should support students to have a good attitude towards politics, considering the benefits of using attitudes, affecting the behavior of non-innocent students, resulting from childhood upbringing (Le Bourdon, 2018; Reysen & Katzarska-Miller, 2013b).

The findings in accordance to the model of the Classroom Level pointed out that when teachers provide quality teaching, it does not only help students develop their global citizenship characteristics, but also helps the development of DECTER and ATTI factors that will ultimately lead to the development of the global citizenship characteristics (Ryan & Deci, 2017). The occurring change is most evident in the ATTI factor, which becomes a greater role in students while it is in the student level structure. The researcher is almost not amazed by the answers receiving from this analysis because the ATTI factor in the classrooms affecting citizenship is inherited from teachers and friends who we accept or follow mass groups. Most of them have the idea that if a large group of people does something more often than it is a small number, and that any person is wrong from a large group, they may be abandoned or disapproved (Gibson, 2000). The ENVIRON factor has a negative effect on the global citizenship since this factor is relevant to the school's policy and the internal focus of the school, which the Office of the Basic Education Commission Problems found in school management regarding teaching readiness, insufficient teachers, and teachers having other tasks besides teaching, including supporting factors from school administrators, influenced everyone in the school and development community, too (Rattananuson, 2013).

It can be concluded that the development of global citizenship characteristics cannot be developed in any method. All factors are all essential, and the research also shows that the component of attitude towards politics has the most weight in accordance with the standard of social studies learning, religion, and culture. This standard requires the students to be knowledgeable, understand and act following the duties of good citizenship, have good values and maintain Thai traditions and culture, live together in the Thai society, and the global society in peace as well as understand the political system and government in today's society. Moreover, the students should adhere to faith and uphold the democratic regime of government with the King as Head of State. The characteristics of good global citizenship, the citizens must be educated and instilled good concepts to society from the institutions as the main institution responsible for the promotion of dreams, values, attitude, and education for students (Sklarwitz, 2017).

Conclusion

In the Student Level model structure, DEMOC, DECTER, and ATTI remain the significant factors for explaining the variance of GLOBAL. It is found that each of these factors has a direct and indirect effect on GLOBAL with statistical significance in positive directions of all paths. It can be said that each of the factors has a relationship to explain each other's global citizenship. They should not be separated because they explain the variance of GLOBAL up to 68.50%. Among these, ATTI is the most prominent factor due to having a very high direct effect compared to other factors at the same level. As the classroom level model, it is clear that TEACHING is a variable that plays a crucial role in students promoting the important characteristics of global citizenship.

Suggestions

Based on the findings, the researcher has two important suggestions for applying the research results: 1) democratic parenting, teaching activities, school environment, logic in decision making, and political attitudes have a direct effect on global citizenship. It points out that the variables of democratic parenting, teaching activities as well as school environment are crucial for high global. Therefore, parents, teachers, and administrators need to encourage students to have the readiness for global citizens. However, the role of the family, schools remain important to cultivate and promote the global citizenship as well, and 2) the findings indicate that the 5 elements of the global citizenship measure has an effect on the global citizenship of high school students with the appropriate and comprehensive level, and can be applied as a guideline to promote the global citizenship of high school student

The results of this research provide stakeholders with information on factors contributing to global citizenship. The researcher studied only one group of variables, however, there are many variables explaining the influence of global citizenship, so the influence of other variables, such as technology variables, innovative thinking variables, etc. should be studied. Moreover, moderated mediating effect parameters should be examined so that the model can more accurately explain the factors contributing to global citizenship.

Limitations

As researchers with the interest of studying the causal relationship between various factors affecting global citizenship, the researcher foresaw that the factor structure at the Student Level is quite obvious and comprehensive. Some factors do not bring into this framework this time, such as the influence of media, technology, etc., due to the need to develop models to use variables as needed and are the economic model. Therefore, the student factors that appear in the model have been synthesized and provide clear evidence of the significance of the direct effect. Contrastively, the factor structure of the Student Level, there is still a lack of sufficient conclusions due to the wide scope of variables that may affect the characteristics of students with the difference of context. Moreover, the conclusions arising from the previous research which give importance to the cascading structure of each level of factors with limitation may cause the synthesis of the research findings to relate to the factors of the Classroom Level to be inaccurate. In addition, there is the changing trend of view in developing the global citizenship characteristics that are more flexible and wider scope, it is appropriate that the researcher should conduct further studies to conclude.

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