Effects of Mindset, Democratic Parenting, Teaching, and School Environment on Global Citizenship of Ninth-grade Students

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Abstract: This research intended to examine the effect of mindset, democratic parenting, democratic teaching, and school environment on global citizenship among 2,226 ninth-grade students and 80 social studies teachers from 80 classrooms in public schools. The research instruments included a student questionnaire to measure global citizenship, democratic parenting, fixed and growth mindset, and a teacher questionnaire to measure democratic teaching and school environment and to analyze the data based on multilevel structural equation modeling. The significant findings revealed that democratic parenting and school environment positively affected global citizenship, whereas democratic teaching had a negative effect on global citizenship. In addition, the outstanding students with a growth mindset tend to lead to a positive effect and act as a mediating role through global citizenship than those with outstanding fixed mindset clearly. All factors in the model collaboratively explained the variance of global citizenship accounted for 62.8% and 47.5% at student and classroom levels, respectively. Finally, the discussions and suggestions section suggested the recommendations according to the findings of the research.

Keywords: Democratic parenting, democratic teaching, global citizenship, mindset, school environment.

Introduction

The globalized world has been a period of rapid global change. Since the global population migration, an exchange of thoughts and feelings about things in a borderless world, social awareness at the local, national, and international levels (Damiani, 2018; Holmes, 2019; Reynolds et al., 2019), they allow individuals to recognize that their world is so broad that they can catch up with the changing conditions without the border of each country (Ait-Bouzid, 2020; Karakuş et al., 2017). The modern world is becoming more and more complicated by sharing awareness and allowing more opportunities to live together under different ideas, beliefs, cultures, and traditions through economic growth and changes in the physical environment. Concerning this borderless world, people in each country have the opportunity to recognize, learn, realize and participate in the change of the world in different dimensions. Therefore, the tendency in the quality of human resource development has to be developed to keep up with the social and world movement. In contrast, human beings should also be dependent on the world (Ait-Bouzid, 2020; Karakuş et al., 2017).

Many scholars have emphasized mentioning global citizenship. Thereupon, it reflects that human resource development shifts from focusing on creating human beings that help maintain society and the peaceful world more than human development the academic excellence. This change also brings to the changes of youth perception from country citizenship, which is the awareness of conditions and problems in the countries, love, cherish the national sovereignty, and have the readiness to participate in developing the nation being equal to those of other civilized countries. Then, they become the youth with perception, understanding, awareness of cultural differences, understand the problems in the global society and the global environment (Akudolu et al., 2017; Osidakcz, 2018). Human beings coexisting peacefully in society with cultural differences will lead to global solutions that can be solved and create a better future world sustainably (Kurt et al., 2013; Mikander, 2016). Thus, it reflects that the world needs different human resources in the rapid changes of the former world.

The previous body of knowledge has reflected that human resource development to be fully global citizenship cannot be undertaken solely by the refinement of classroom learning. However, every learning in life inside and outside the
classroom, both in school and in their families, influences youth's shaping in building awareness and appreciation. Then they desire to be part of a confusing and complicated global society now and in the future (Reynolds et al., 2019). In the past, the researcher summarized the results of the synthesis of four key factors affecting the drive of global citizenship (Altıkulaç & Yontar, 2019; Bennell, 2015; Damiani, 2018; Gordon, 2014; Mathews, 2016; Pinjai & Damrongpanit, 2020) namely 1) internal factors of students such as attitude toward politics, determination, nationalism, and patriotism, digital competency, 2) teachers' role, curriculum, and teaching activities such as democratic teaching method, social study content, and textbook, 3) social and school environment such as social network, interdependent in social, and 4) child-rearing such as democratic parenting. Unfortunately, the mindset is the predominant factor in explaining the intrinsic behavior of specific individuals whose clues have not been studied to describe global citizenship clearly.

Mindset is the primary key to explain human behavior and abilities. Findings from several previous research have played an essential role in explaining the critical role of mindset. It plays in motivating individuals not only to discover their learning potential but also to discover and develop their ability to live their lives (Degol et al., 2018), social interaction (Gummesson & Remedios, 2018; Ryazanov & Christenfeld, 2018), satisfaction with peacefully social life (Puente-Díaz & Cavazos-Arroyo, 2017; Waithaka et al., 2017). Including having a role as a mediator between several causal relationships (Huang et al., 2018; Lou et al., 2017; Puente-Díaz & Cavazos-Arroyo, 2017; Schroder et al., 2019). They show that mindset affects the behavior of individuals in different dimensions, but, unfortunately, much of the previous research supports mindset's effect on learning ability. However, they have to lack empirical evidence supporting the association of mindset on the skills and attributes of future citizens.

Thailand has initiated the focus on developing diverse abilities of learners in cognitive, affective, and psychomotor domains, recognizing the preparation and development of the country's youth into a new world. It can be seen that taking part in the global society is no less important than the importance of creating intellectually outstanding youth. Therefore, it appears as a guideline for the learners' development in the curriculum covering all levels of education. Nevertheless, Thailand with the proper circumstance of the students' development to be complete global citizens differing from foreign countries (such as political revolution as democratic governance with the monarchy, education policy fully linked to political changes, attitudes or academic expectations of teachers and parents, parenting rearing style according to Thai traditions, and so forth) may also contain complex and different conditions describing the success of the students' development. Consequently, it is interesting that the development of global citizenship in globalization is the crucial factor in how it will affect students' global citizenship. Besides, the mindset will influence all aspects of the students, how the different growth and fixed mindsets interact with each factor in the way of influence on global citizenship.

**Literature Review**

*Global Citizenship*

“Global Citizenship” is the interested character of individuals and is the trait that the global scholars expect. They have the perspective and belief as to the quality human resource character for the coexistence of diverse human beings in beliefs and practices under the advancement of traveling and communication. It transforms a world with borders between countries to become a borderless world and changes the whole world by having more creativity while it is full of troubles. Therefore, the preparation of human resources in the modern world is not a separate process for each country. It rather means the preparation of people with the ability to coexist wherever they are in the world (Akudolu et al., 2017).

As a literal meaning, although global citizenship has been mentioned for a while, there is not enough concise meaning with the clearly appropriate explanation in different societies (Reynolds et al., 2019). However, many scholars refer to the framework of the global citizenship study from the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2015) that explains that the characteristics of youth born with global citizenship attribute consist of three elements: 1) the cognitive domain, the attribute of a knowledgeable person, and analytical thinking skills for understanding issues relevant to local, national and international circumstances leading to cooperation and interdependence in a global society; 2) the socio-emotional domain, the attribute of the students with a sense of human value, the value of sharing responsibility, sincerity, and unity including respect for differences and diversity; 3) the behavioral domain, the attribute of the students with practical and responsible behavior for the local community, society, nation, and world for peace and sustainability. These three elements are essential that many countries rely on for curriculum design as well as teaching and learning activities focusing on youth development in each country, such as developing content in the curriculum of Global Citizenship promotion (Ait-Bouzid, 2020; Massey, 2014), developing teachers to manage learning following Global Citizenship guidelines (Damiani, 2018), developing textbooks (Karakuş et al., 2017; Mikander, 2016). In addition, the researcher also suggested that the development of the students should prioritize with the cognitive domain. Therefore, it will increase the success in student development (Damiani, 2018) through the various interesting learning management methods such as problem-solving activities, group work, role-plays, simulations, opinion-gap activities, and information-gap activities. Furthermore, the mentioned example of learning management should emphasize the students' role as learner-centers (Ait-Bouzid, 2020), spread across a wide range of subjects without specifying only on specific subjects (Akudolu et al., 2017).
**Democratic Parenting**

Family is an essential foundation for building people. It is not only a place to nurture an individual to have complete health both physically and mentally, but a family is also a place for cultivating and transmitting ideas, beliefs, morals and ethics, spiritual ideology towards living and perception of one’s own role in society from early life (Clark, 1983; Damiani, 2018; Shaffer & Kipp, 2010; Wray-Lake & Flanagan, 2012). When the family foundation is qualified, it inevitably leads to a quality child refinement process as well. According to the past knowledge synthesis, it was revealed that a family with good educational background affects the child’s chances of obtaining a higher education and the use of inductive reasoning without corporal punishment (Gamez-Guadix & Almendos, 2016). Moreover, it was also found that families who played roles as friends, teachers, trustful people always create a good atmosphere for living together, recognize the value of oneself and society, and have good self-management. They will influence the child’s development in self-awareness, self-management, social awareness, relationship skills, responsibility, and decision-making. When children grow up, they become citizens with positive social interactions, emotional resilience and mental well-being, academic success, and healthy relationships (Miller et al., 2018; Warren et al., 2018). Even though knowing child parenting affects child development, each society’s traditions and beliefs globally come up with the diversified style of child parenting (Baumrind, 1991), such as democratic, overprotective, permissive, and authoritarian (Kostereioglu, 2018). Furthermore, the findings of the study support that democratic parenting is the child parenting with the effect on academic success, achievement goal orientation, empathy behavior on prosocial, and global citizenship (Pinjai & Damrongpanit, 2020; Saltali, 2018; Syahril et al., 2020; Wray-Lake & Flanagan, 2012).

**Democratic Teaching**

It is a well-known fact that quality teaching and learning management methodologies target at developing the knowledge and necessary skills to acquire knowledge for the quality of human resources in each country, and lead the country to gain more competitive advantages on the world stage, however; the concept of learning management has changed in this new world, with the need for human resources rather than intelligence. Notably, there should be the one who can be the successor and maintain a peaceful world under diversity and distinction. Therefore, the teaching methodologies of the teachers play an essential role in helping to develop, orientate or stimulate awareness of living a life with value as global citizenship (Arthur & Wright, 2001; Griffith, 1998). According to the past documentary research findings, it was found that the preparation of human resources for the modern world living in many countries around the world; most of them focus on a development approach called “Global Citizen Education” (GCE) to serve as a guideline for creating courses in the curriculum. It is not only to develop academic knowledge and skills, but it also cultivates global citizenship characteristics through content and each subject activity likewise. In principle, GCE is flexible; as a result, the teachers in each country can be adapted for teaching and learning for each subject under different age ranges. The scope of knowledge development of important learners can be summarized in many aspects such as poverty, globalization, migration, human right, social justice, democratic society, land grasping, fair trade, child labor, global garment supply chain, social movement, climate change, and UN and NGO (Alt-Bouzid, 2020; Karakuş et al., 2017). The main goal of studying GCE is to provide students with critical thinking and awareness of phenomena occurring in the world, world development with sustainability, globalized world, international cooperation as well as the harmonious coexistence between human differences in race, environment, culture, and economy to become unity in the world (Karakuş et al., 2017; Massey, 2014). It can be said that GCE is appropriate for the development of knowledge, attitudes, and practical skills in a global society (especially global issues) other than those used in their own traditional culture (Damiani, 2018; Mathews, 2016).

**School Environment**

It cannot deny that the school environment is an important crucial factor affecting perception, understanding, or imitation from behavioral models since it has a complex structure both physically and socially (Kim & Chun, 2018; Loukas, 2007). In Thailand, each student spends at least 6-7 hours per day in school as for educational culture, focusing primarily on the cognitive domain. Especially at the secondary level as the age of searching for their own identity, this gives a high opportunity to learn and imitate from the models both in real-life situations and people in real situations as well as through online media (Bandura, 1977; Kearney & Levine, 2020). Consequently, the school environment affects the development of knowledge, skills, and desirable characteristics of the students no less than teaching and learning activities. The results of the review literature disclosed that the students are always interested, try to understand, imitate, and adhere to what they are impressed with, practical, and valued (Neuenschwander et al., 2018; Park et al., 2018). Therefore, whenever people involved with students are friendly, intimate, value or show social skills and social interaction or global citizenship, these things have the potential to be conveyed to the perception and importance of students eventually (In et al., 2019; Kim & Chun, 2018). The crucial features of the school environment affecting global citizenship include schools with good relationships among members of the organizations, physical arrangements facilitating the promotion of global citizenship, and awareness building on the equality of student expression (Gaudelli, 2016; Pinjai & Damrongpanit, 2020; Wahrman & Hartaf, 2019).
Mindset

The mindset concept is concerned with beliefs about intrinsic human abilities. Theoretically, the implicit theory can describe two such beliefs (Blackwell et al., 2007); 1) Incremental Theory is the belief that human intelligence and abilities can be developed when the person concentrates and exerts enough effort called a growth mindset, and 2) Entity Theory, is the belief of a person with the thought of human intelligence or abilities have different peculiarities and can be used to learn things, however; it cannot change much from what was initially called a fixed mindset. Nevertheless, the present research can conclude that the growth mindset has a positive effect on the development of students’ abilities; that is, the students with the growth mindset belief not only have a high academic achievement (Damrongpanit, 2020; Degol et al., 2018; McClendon et al., 2017), but also several desirable traits tend to emerge, including self-monitor (Bittner & Heidemeier, 2013), high effort and improvement (Rhew et al., 2017), challenge work (Cho et al., 2018), grit (Huang et al., 2018), self-discipline (McClendon et al., 2017), extend skill and knowledge (Mrazek et al., 2018), leadership and proactive personality (Caniëls et al., 2018) voluntary (Han et al., 2018) and social skill (Gumnesson & Remedios, 2018) more than those who have the belief as to the fixed mindset (Mrazek et al., 2018; Seaton, 2018). In accordance with some mentioned findings, it is noted that many of the variables associated with the mindset are clearly linked to the global citizenship and learning management practices for developing 21st-century students.

As described above, regardless of what aspect of the student’s development is aimed, the important final goal is human resource acquisition responding to changes in the globalization era, which is a world without borders. There are different social and cultural connections leading to the development of the country meanwhile many problems and conflicts occur in the world.

Therefore, the significant key for solving the problem is future generations of youth with recognition attributes, coexistence awareness in a global society with physical, social, and cultural differences. They desire to participate in the situation of the global problem as their own problems, respect the rights and fairness while being able to learn various knowledge around the world for a lifetime. Therefore, the researcher formulated the following significant research questions; (a) Will the key factors influencing global citizenship such as democratic parenting, democratic teaching, and school environment, continue to have the common effect on students’ global citizenship and how? and (b) Will the two mindsets play a role as mediators according to all factors affecting the global citizenship as a result of past research? In this study, the researcher determined the study scope on the structure of the relationship between variables among ninth-grade students because they were clearly initiating into adolescence, start to find one’s identity and socialize, and most importantly, it is the age with the use of portable electronic devices to communicate and learn the wider society. The researcher thereafter expects that when obtaining the detailed research’s finding, the researcher will be able to suggest guidelines for the development of students integrated into different groups for parents, teachers, and school administrators in the future.

Methodology

Research Goals

The objectives of this research were to examine the validity of the multilevel structural equation model influencing global citizenship and to investigate the roles of both Growth Mindset and Fixed Mindset in the causal relationship between the three major causal factors consisted of democratic parenting, democratic teaching, and school environment on ninth-grade student’s global citizenship.

Samples

Samples of this research were employed with 1) 80 social studies teachers in public schools, 17 males and 63 females, and 2) 2,226 ninth-grade students, 762 males, and 1,464 females. The principle of determining the number of samples was from the total number of 112 parameter values in the model. The estimation of the number of samples for the multilevel analysis model was 10-20 times per parameter value (Hair et al., 2010; Schumacker & Lomax, 2010), so the minimum sample size should be approximately 2,240 individuals. Moreover, the average number of students per class was estimated at 30, resulting in approximately 75 students/room in each social sciences teacher per class. Both students and teachers were sampled from multistage random sampling, starting with teachers from each province, each school, and each person who could access and schedule an appointment with all 80 teachers. Later on, the data will collect from the students from the sample group of teachers, 1 classroom per teacher.

Research Instruments and Data Collection

Data were collected from 1) a 77-item student questionnaire measuring global citizenship, democratic parenting, and mindset variables, and 2) a 23-item social studies teacher questionnaire measuring democratic teaching and school environment variables. Both questionnaires were five-Likert Scale questionnaires (1=strongly disagree, 5=strongly agree). The measurement scope for each variable was defined as follows.
Global Citizenship (GCITI) refers to the students’ attributes with an understanding of their role in society and politics, acceptance, and living together under ethnic differences, have compassion for other people and other things in the society, concern for the common advantages of the society, have responsibility for their duties and society, being aware of the existence and environmental protection to benefit everyone in the society sustainably, have compassion for everyone and everything in society, helps, support, love equality as well as social justice. The GCITI was measured by five latent variables: self-responsibility (RESPON), appreciation of ethnic diversity (DIVER), empathy (EMPHAT), and dependency assistance (DEPASS), and appreciation of social justice (JUSTICE). There were 55 questions constructed in Thai by the researcher based on a framework for defining variables, synthesized from papers and research. This questionnaire had the discrimination index from the item-total correlation analysis between 0.153-0.704, and the reliability of observed variable measurement was between 0.792-0.832. The examples of the questions were “I think that the physical and cultural differences in each society is something impressive and should be learned.”, “Following social and political news makes it possible to plan a happy future.”, and “Everyone in society can coexist despite differing opinions.”

Democratic Parenting (DEMPAR) refers to practical, nurturing, cultivating experiences attributes from parents to students through reasoning provision, provide the opportunity to express their opinions freely under respect for the rights of oneself and others, promote respect for differences between groups of people in society for the common advantages, and play a role in demonstrating a socially and politically appropriateness as responsible citizens. The DEMPAR was measured by the four latent variables as family warmth (WARM), reasonable freedom of thought (REASON), building family equality (EQUAL), and adequate and continuous attention (ATTENT). There were 16 questions which the researcher constructed in Thai based on a framework for defining variables, synthesized from papers and research. This questionnaire had with a value between 0.407-0.655 of the discrimination index from the item-total correlation analysis, and the reliability index for each observed variable measurement was between 0.673-0.796. The example questions were; “I can talk about all topics with my family members.”, “I try to design learning activities that allow the students to take part in determining the rules, criteria for common practice.”, “Parents teach me to share for the society frequently if it is possible.”

Democratic Teaching (DEMTEA) refers to the organizational attributes of the learning management process that promote independence and reasoning of thought, know their roles and duties relate to the duties of others in a democratic way. Moreover, it leads to accepting differences in the other opinions of and public altruism rather than personal benefits. The DEMTEA was measured by four latent variables: public altruism (PROSOC), acceptance of others’ opinions (OPENM), recognition of one’s roles and duties (REGROL), and acceptance and respect for the rights of others (RESPECT) as the measurement. The 12 questions constructed in Thai by the researcher based on a framework for defining variables, synthesized from papers and research. This questionnaire had the discrimination index value based on the item-total correlation between 0.153-0.637 and the reliability value to measure each observed variable as between 0.559-0.781. The example questions included, “I try to design learning activities that allow the students to take part in determining the rules, criteria for common practice.”, “My parents provide an opportunity to express reasons in deciding for the important matters by myself.”, and “I try to provide an environment where every student in the school should be informed both at home and abroad to raise awareness of being part of a global society.”

School Environment (SENVIR) refers to an environment of stimulation of thought and behavioral characteristics conducive to global citizenship, raise awareness of the values in different cultures and societies, be aware of the political situation affecting the quality of individual life in society and the world. The SENVIR was measured by three latent variables: promotion of good relationships among classroom and school members (RECIPRO), development of democratic physical characteristics (PHYSICA), and promotion of school equality activities (SEQUAL). There were 11 questions constructed in Thai by the researcher based on a framework for defining variables, synthesized from papers and research. This questionnaire had the discrimination index values derived from the analysis of the item-total correlation between 0.163-0.571, and the reliability value in measuring each observed variables was between 0.572-0.773. The example questions were as “I realize that schools are places to prepare for the claim of equality which is a fundamental element of society.”, “I try to organize classrooms and schools where students can reflect on their ideas, rationale, creative practices to various operations.”, and “I try to provide an environment where every student in the school should be informed both at home and abroad to raise awareness of being part of a global society.”

Mindset refers to students’ beliefs in themselves and others about their existing learning abilities and self-improvement as well as knowledge and ability to change that ability in the future. It can be classified into two types: 1) Growth Mindset (GROWTH) is the belief that learning is flexible and can be developed when there is motivation and clear goals, and 2) Fixed mindset (FIXED) is the belief that each person has unique, innate abilities, and cannot change or develop much. The researcher applied the mindset development framework for measuring six questions from the Implicit Theories of Intelligence of Dweck and Henderson (1988, as cited in Ingebrigtsen, 2018) and can be classified into three items for measuring Growth Mindset such as “You can always substantially change how intelligent you are.”, “No matter who you are, you can significantly change your intelligence level.”, and “You can change even your basic intelligence level considerably.”, and three items to measure fixed mindset which were “You have a certain amount of intelligence,
and you really cannot do much to change it, "Your intelligence is something about you that you cannot change very much." and "You can learn new things, but you cannot change your basic intelligence."

The researcher coordinated with the school administrators to request assistance in collecting data with the social studies teachers and the ninth-grade students by clarifying the number and length of questionnaires, including the right to provide or not provide research data voluntarily. There is no time limit for providing information in the questionnaire. Therefore, the respondents can take time to scrutinize their needs. The total time to collect data was 2 months.

Data Analysis

The researcher surveyed the data characterization by descriptive statistics to determine the central tendency and data dispersion of each observed variable and examined the normality of skewness value (Sk should be between ±2), kurtosis value (Kur should be between ±2) (George & Mallery, 2010), and Shapiro-Wilk test. Moreover, multiple correlation analysis was also performed, Kaiser-Meyer-Olkin (KMO) should be closer to 1, and Bartlett’s test of Sphericity should be statistically significant to illustrate the relationship between variables and apply it for decision making in the latent variable analysis technique, and the structural equation model.

As the data analysis, multilevel structural equation modeling (MSEM) was used for examining the validity of the democratic parenting factor model, democratic teaching, and school environment towards global citizenship. The statistical values related to model validations were: Intraclass Correlation (ICC), values representing the closeness of variable data from the students in the same class, or values showing the proportion of intra-group variance divided by the total variance between 0 and 1, ICC value of observable variables of latent variables (democratic environment and teaching) should be greater than 0.05, the ratio between Chi-square and degree of freedom should be no more than 5, Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI) should be greater than 0.90, Root Mean Square Error of Approximation (RMSEA) should be less than 0.06 and Standardized Root Mean Square Residual (SRMR) should be less than 0.08 (Geiser, 2013; Kline, 2011) through the use of Mplus 7.4.

Results

According to the initial findings of the mindset analysis among the students, it was found that there were 1,659 students with the dominant trait of GROWTH (74.5%) and 335 students with the dominant trait of FIXED (15.0%). The remaining 232 students had unspecified results (10.4%). The skewness (Sk) values analysis were between -0.850 and 0.253, the kurtosis (Kur) values were between -0.582 and 0.552, and the Shapiro-Wilk W values were between 0.786 and 0.970. All values indicated that the data were normal distribution. In addition, the multiple correlation coefficient values between variables at the student level were between -0.004 and 0.623, and at the classroom level were between -0.048 and 0.647, the KMO value was 0.824, Bartlett’s test of Sphericity value was 19221.722, df=231, p-value=0.000 indicated that the correlation matrix of the observable variable is not an identity matrix. Therefore, the correlation of the variables is not more than necessary, and there are sufficient reasons for using the latent analysis technique in research.

The MSEM revealed that the pre-modified hypothesis model had values of $\chi^2=1882.849$, df=289, $\chi^2/df=6.515$. The intraclass correlation (ICC) value of the observed variables was between 0.071 (WARM) to 0.142 (FIXED1). The difference in group means is reasonable enough to analyze the data with the multilevel analysis technique. When modifying hypothetical model congruence with the empirical data, important statistical values were $\chi^2=520.007$, df=266, $\chi^2/df=1.955$, CFI=0.979, TLI=0.974, RMSEA=0.021, SRMRwithin=0.027, and SRMRbetween=0.258

The estimation of influence between variables at the student level results showed that DEMPAR had a statistically significant positive effect on GCITIW at the .01 level for both direct effect (β=0.433), indirect effect (β=0.157), and total effect (β=0.590) and more likely to influence through GROWTH (β=0.147) than through FIXED (β=0.010). The GROWTH and FIXED variables had a statistically significant positive effect on GCITIW at the .01 level, with effect values of 0.547 and 0.058, respectively. Moreover, DEMPAR had a statistically significant positive direct influence on GROWTH and FIXED with similar magnitudes (β=0.268 and 0.171, respectively). The three latent variables together accounted for the variance of GCITIW for each student obtained as 62.80%.

The results of estimating influence at the class level between variables showed that 1) DEMTEA had a statistically significant negative effect on GCITIB (β=-0.862), but had a statistically significant positive indirect effect (β=0.348), especially DEMTEA→GROWTH→GCITIB, which had a positive indirect effect (β=0.402), while DEMTEA→FIXED→GCITIB, which had a negative indirect effect (β=-0.054); 2) SENVIR had a statistically significant positive effect on GCITIB (β=0.840), but a statistically significant negative indirect effect (β=-0.457). Specifically, SENVIR had an indirect effect on GCITIB through variables. GROWTH had a negative effect (β=-0.506), while SENVIR influenced GCITIB via FIXED variable, which had a positive effect (β=0.049); and 3) both GROWTH and FIXED had a statistically significant positive effect on GCITIB (β=0.667 and 0.147, respectively), but GROWTH had a more greater than four times than FIXED. The latent variables at the classroom level together explained the variance of GCITIB by 47.50%. Details are shown in Table 1 and Figure 1.
Table 1. Standardized regression coefficients for multilevel structural equation modeling

<table>
<thead>
<tr>
<th>Path</th>
<th>Direct Effect</th>
<th>Indirect Effect</th>
<th>Total Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student Level (R-square=62.80%)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEMPAR → GCITIW</td>
<td>0.433**</td>
<td>0.157**</td>
<td>0.590**</td>
</tr>
<tr>
<td>DEMPAR → FIX → GCITIW</td>
<td></td>
<td>0.010</td>
<td></td>
</tr>
<tr>
<td>DEMPAR → GROWTH → GCITIW</td>
<td></td>
<td>0.147**</td>
<td></td>
</tr>
<tr>
<td>FIXED → GCITIW</td>
<td>0.058**</td>
<td></td>
<td>0.058**</td>
</tr>
<tr>
<td>GROWTH → GCITIW</td>
<td>0.547**</td>
<td></td>
<td>0.547**</td>
</tr>
<tr>
<td>DEMPAR → FIXED</td>
<td>0.171**</td>
<td></td>
<td>0.171**</td>
</tr>
<tr>
<td>DEMPAR → GROWTH</td>
<td></td>
<td></td>
<td>0.268**</td>
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<tr>
<td><strong>Classroom Level (R-square=47.50%)</strong></td>
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<tr>
<td>DEMTEA → GCITIB</td>
<td>-0.862**</td>
<td>0.348**</td>
<td>-0.514**</td>
</tr>
<tr>
<td>DEMTEA → FIXED → GCITIB</td>
<td></td>
<td>-0.054**</td>
<td></td>
</tr>
<tr>
<td>DEMTEA → GROWTH → GCITIB</td>
<td></td>
<td>0.402**</td>
<td></td>
</tr>
<tr>
<td>DEMTEA → FIXED</td>
<td>-0.368**</td>
<td></td>
<td>-0.368**</td>
</tr>
<tr>
<td>DEMTEA → GROWTH</td>
<td>0.603**</td>
<td></td>
<td>0.603**</td>
</tr>
<tr>
<td>SENVIR → GCITIB</td>
<td>0.840**</td>
<td>-0.457**</td>
<td>0.383**</td>
</tr>
<tr>
<td>SENVIR → FIXED → GCITIB</td>
<td></td>
<td>0.049**</td>
<td></td>
</tr>
<tr>
<td>SENVIR → GROWTH → GCITIB</td>
<td></td>
<td>-0.506</td>
<td></td>
</tr>
<tr>
<td>SENVIR → FIXED</td>
<td>0.331**</td>
<td></td>
<td>0.331**</td>
</tr>
<tr>
<td>SENVIR → GROWTH</td>
<td>-0.758**</td>
<td></td>
<td>-0.758**</td>
</tr>
<tr>
<td>FIXED → GCITIB</td>
<td>0.147**</td>
<td></td>
<td>0.147**</td>
</tr>
<tr>
<td>GROWTH → GCITIB</td>
<td>0.667**</td>
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<td>0.667**</td>
</tr>
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</table>

Note: **p<0.01, *p<0.05
Note: 1) the numbers in the figure show standardized coefficient, 2) ** p < 0.01, 3) The black dots represent the mean of each student’s observed variables for classroom-level effect analysis.

**Figure 1. Multilevel structural equation model of factors influencing global citizenship.**

**Discussion**

The above research results indicated that all variables included in the conceptual research framework played a statistically significant role, both directly and indirectly. Consequently, the overall hypothesis model was consistent with the empirical data. Therefore, the researcher paid more attention in discussing four important issues about the results as follows:
The first issue, democratic parenting, can be regarded as a predominant factor in developing global citizenship among the students due to its positive effect both directly and indirectly, and total effect, especially the direct effect with a relatively great influence. However, democratic parenting interacted with the growth rather than the fixed mindset when considering the indirect effect. It presented that democratic parenting with inductive reasoning, providing freedom of thought, respecting the rights of others, considering the common benefits as important, tending to make students more flexible in learning, being indomitable to obstacles, and loving to learn and develop yourself can lead to global citizenship. However, democratic parenting did not influence in conjunction with the fixed mindset characteristics of the students to clarify global citizenship in detail. The results of this research are based on the preliminary hypothesis that family is the foundation for student development, both academic and social factors, consistent with and supporting research by Wray-Lake and Flanagan (2012) and Syahril et al. (2020) found that democratic parenting has a positive effect on social trust, empathy behavior among teenagers. Furthermore, Saltali (2018) revealed that democratic parenting with inductive reasoning and warmth had a beneficial effect on prosocial behavior and reduced aggressive and socially withdrawn behavior. Moreover, Waithaka et al. (2017) mentioned that the student-parent relationship influenced the student's mindset, and Pinjai and Damrongpanit (2020) indicated that democratic parenting positively affected political attitude, rational decision making, and global citizenship of high school students.

The second issue was that the researchers were somewhat surprised that the democratic teaching had a very high positive and total negative effect on global citizenship. When considering indirect effect through the growth mindset, democratic teaching had a positive indirect effect with relatively great influence, indicating that the teachers' teaching is not in accordance with the appropriate global citizenship development guidelines. Nonetheless, although teachers' teaching had an overall negative effect on global citizenship, if the students possess a growth mindset dominant trait, they have a good chance of developing global citizenship. It is unlikely for students with a fixed mindset dominant trait, and it tends to have a slightly more negative effect on global citizenship. However, many scholars advocated that the democratic approach to pedagogy nurture and develop future students. These students will help take care of society, environment, and the world (Arthur & Wright, 2001; Griffith, 1998), including the results of research evidence demonstrating ways to develop global citizenship through teaching and learning, such as Akudolu et al. (2017), who developed global citizenship through the provision of virtual learning for university students in Nigeria. As for Mathews (2016), he applied a multimedia project based on the concept of global and civic citizenship to develop global competence for the students or Damiani (2018) and Karakus et al. (2017), who developed curriculum and textbooks to promote global citizenship to build fundamental knowledge and understanding of the global society, global situation, international problems, participation in solving problems and coexist peacefully without racial and cultural boundaries. The contradiction from the results of this research, 1) the researcher has two important assumptions to explain: 1) as in Thailand’s educational societies, the students spend more than eight hours a day in school, five days a week. Significantly, many students spend time outside of their homes at least three hours a day for remedial study outside the schools to increase knowledge in the curriculum. They aim at academic achievement and test scores from the national standard, reflecting its educational management standards. As a result, teaching and learning on global citizenship are not as concrete as they should be, and 2) the curriculum and learning management approaches of Thailand also focus primarily on developing academic competence. Although there has been some beginning to focus on preparing young people for 21st-century learning, the values of most teachers and school service providers remain with the emphasis on academic competence.

The third issue, school environment, is another factor with the doubt of details because the school environment had a positive effect and a statistically significant total effect with a relatively high effect. In contrast, the negative indirect effect was revealed among the students with the growth mindset traits with a high effect size. In contrast, there was a tendency to positively affect the fixed mindset students with a small effect size. The findings of this section, when considering direct and total effects, are consistent with previous hypotheses and findings. It explains how the role of the school environment affects the development of the students in the cognitive, affective, and psychomotor domains directly and indirectly. The schools organized in various environments connecting to perception and attention lead to imitation, understanding, caring, and ultimately becoming a citizenship value (Bandura, 1977; Kearney & Levine, 2020). This interpretation can be supported by many scholars, In et al. (2019), school climate, life satisfaction, and social skills are related, whereas Pinjai and Damrongpanit (2020) found that the school environment had a positive effect on global citizenship, along with democratic teaching, political attitude, and rational decision-making factors. Nevertheless, the indirect effect, which tended to be negative for the growth mindset students and positive for the fixed mindset students, provided new evidence for the researcher. There is no evidence from the research findings showing the same interpretation. Initially, the researcher hypothesized in the explanation linked to the effect of democratic teaching variables that although general knowledge showed that the school environment had a positive effect on global citizenship, in the context of Thailand mainly focusing on the development of the cognitive domain, the promotion of the students in terms of teaching and learning management and the development of the school environment pay more attention to the development and fulfillment of academic knowledge. Therefore, the indirect effect on the self-development of the growth mindset students was in a negative direction, while the indirect effect on the self-development of the fixed mindset students was positive.
The fourth issue, the role of the mindset in the overall picture of the research results, pointed out the dominant role of growth mindset in global citizenship and its relevance to independent variables superior to fixed mindset in terms of a direct effect on global citizenship and indirect effect as a mediator variable. The total effect influenced global citizenship, where the difference in the size of effect between the growth mindset and the fixed mindset is more outstanding in the classroom level model. These findings added further evidence to the substantial amount of previous research in clarifying the global citizenship context. The students with growth mindset beliefs tend to improve themselves, increase knowledge in a sensitive world with changes, know how to receive and payback to society and the world and live happily with quality under a borderless world in a different aspect. This is because the growth mindset students are characterized by planning and self-direction. They have effort and self-development, endure when encountering problems and obstacles that are different from what has been seen before, have high effort, have challenges in working, and continuously develop their own skills and knowledge (National Center on Scaling Up Effective School, 2014). This interpretation can be supported by findings such as Caniëls et al. (2018) described how a growth mindset interacts with proactive personality and transformation leadership on good work outcomes. McGendon et al. (2017) revealed that the growth mindset affects grit and deliberate practice in online learning. Mrazek et al. (2018) mentioned that the students with the growth mindset were more likely to persist in mathematics tasks and self-regulation than the fixed mindset students.

**Conclusion**

In conclusion, important research findings confirm the importance of democratic parenting, democratic teaching, school environment, and mindset to global citizenship as previously learned. Nevertheless, there may be differences in the research results in detail. Due to the specific nature of the parenting, the country's learning management policy, school environment management culture as well as nurturing the belief in learning to the students with the specific traits in Thailand. The conclusion can be summarized as; 1) democratic parenting is good for global citizenship, growth mindset, and fixed mindset, 2) democratic teaching has a positive effect on growth mindset, but a negative effect on global citizenship and fixed mindset, 3) school environment affects positively for global citizenship and fixed mindset but negatively affects growth mindset, and 4) growth mindset affects global citizenship more than fixed mindset.

**Recommendations**

The researcher foresees the findings of this research that it should be used for the development of global citizenship among adolescent students in five important ways: 1) building global citizens with strength starts inside the house. The results confirmed that no matter what kind of mindset the student has, if they are raised with understanding, provide warmth, use inductive reasoning, respect the rights of oneself and others, and self-sacrifice for the common benefits, both groups of students will gain advantages, quality living and become the global quality citizens. While this suggestion is generally acknowledged, the findings are a piece of significant evidence highlighting the role parenting can play in not only providing educational benefits to the students but also for the benefits of the parents. It thereupon affects society and the new world in the future. Therefore, the parents should be aware of their children’s mindset and be attentive to raising awareness and participation opportunities in social and environmental development for their children with a fixed mindset since it was found that this group of children has a significantly less role in becoming a global citizen than the growth mindset group; 2) teachers, in addition to aiming to develop the students to achieve the characteristics as specified by the curriculum, and have academic competence that has passed the national learning standards. Moreover, they should provide additional activities in the classroom and outside the classroom to seriously build global citizenship, especially for the fixed mindset students as they are in the negative affected group by teaching with only on the cognitive domain may have, unfortunately, neglected the cultivation of consciousness towards society and the world; 3) people involved in the development and use of the curriculum should review the content and allocate additional courses promoting knowledge about the wider world, cross-cultural society fairness and equality, human rights, differences and respect for differences, social problems and the current world, students’ roles in living in a borderless global society as well as participation in solving social and global problems in a sustainable way. Anyhow, the learning goals should emphasize knowledge creation, awareness and skills to actively implement activities in one’s society and other societies peacefully; 4) administrators and teachers should consider improving and promote the school environment to be conducive to the perception of the world’s news, wide world society with various differences, current problems sustainably solving a social and global problem, water and air pollution, global temperature, electronic waste, and so forth. The findings reflect that the school environment is likely to focus on academics and benefit the fixed mindset students but negatively affects the perception and learning of the growth mindset students always have the nature of learning everything around, and 5) the research results show that the students with growth mindset characteristics clearly have a positive effect on global citizenship both individually and in the classroom. Consequently, the mechanisms for developing growth mindset students should be implemented both in the students themselves along with the classroom and school concurrently, it will have the best effect. For students in the fixed mindset group, although they revealed they had little to do with global citizenship both in the students at the classroom level, promoting this group of students at the classroom or school level with an emphasis on setting up a school environment that is conducive to raising awareness of the global society and should be the best and most suitable choice for them.
Limitations

This research has the scope to study the significant factors regarding the group of people and the primary environment that are close to students in their daily lives (democratic parenting, democratic teaching and environment) together with internal factors reflecting the students’ views of self-learning (fix and growth mindset), causing the hypothetical model to have the SRMR harmonization index at the classroom level, not within the specified criteria. Personally, the researcher recommends that future research may consider selecting other important variables, especially those at the classroom level, to explain global citizenship more clearly, especially the fixed mindset group, which may lead to other interesting findings, and a more comprehensive approach to promoting both groups of the students. As a result, future research may consider selecting other important variables, especially those at the classroom level, may be considered in order to describe global citizenship, especially the fixed mindset group, more clearly. This may lead to other interesting findings and a more comprehensive approach to promote both groups of students.

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