# Investigation of young girl's perceptions about equality in local sport, games, and public spaces to evaluate the level of inclusiveness

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#### ABSTRACT

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Gender inclusion and equality are significant matters in public and open spaces in the many countries that face problems, limitations, and challenges. The studies highlight that gender inclusion is part of cultural, social, political, and administrative foundations rather than personal beliefs. Designing a new playground for kids and youth could be a challenging activity for designers who concern about the gender inclusion. This paper explains the process of discovery the level of inclusion of girls regarding the use of playgrounds in a preurban area in Kigali, Rwanda. Qualitative questionnaires were arranged to ask the girls' opinions about inclusion and equality through open-ended simple questions. Through descriptive and interpretation analyses the results were evaluated. The findings reveal that girls face problems using playgrounds and open spaces in different times. The school was restricted due to administrative operations and the girls believe that boys have priority to use spaces for sports and games rather than girls and even half of respondents exposed bullying actions of boys. In conclusion, the level of inclusion and equality in the areas was low due to the perception of the girls. This result referred to the wider context of such perception that allowed exclusion and inequality such as cultural, social, political, and administrative aspects. The level of inclusion in the open spaces is higher than in the school due to some insufficient policies. The outputs of this research could lead the politicians and administrative staff to draw more effective policies and administrative guidelines to meet the needs of girls.

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#### INTRODUCTION

Cambridge defines the term inclusion as meaning 'the quality of including many different types of people and treating them all fairly and equally' and the term equality as 'the right of different groups of people to have a similar social position and receive the same treatment' (Cambridge, 2024). Webster Online also defines inclusion in terms of 'the act or practice of including and accommodating people who have historically been excluded (because of their race, gender, sexuality, or ability)' and equality as 'the quality or state of being equal' (Webster, 2024). These two terms are working together to create meaning for the inclusivity in time and location. Despite the perceptual aspects, there are some factors to measure the level of these qualities in a real condition.

Borgatta and Montgomery (2000) mentioned the application of the term inclusion was celebrated by the American Sociology Association (ASA) to refer to the level of participation of women and minorities in the research activities. This achievement was a philosophical change in postmodern thinkers (Sarup, 1993) that criticized the structuralism methods to analyze and evaluate social activities (Sim, 2013). With this philosophical reorientation in human thoughts, gender equality was added to the SDGs (Strategic Development Goals) as goal 5 'to empower, track, and encourage the gender equality' in the world (UN, 2024). Importantly, under goal 5, the report of the UN emphasized the sensibility and vulnerability of young females who are under 18 years old.

Schools are the location to train young females to empower them regarding knowledge, skills, and abilities. However, schools also could be a potential location for discrimination and exclusion (Lee, 2005; Tafahomi, 2020). While the studies mentioned the personal behaviors of the students and peer learning in schools (Kregenow et al., 2011; Lee, 2005; Salkind, 2008) such as positive personality (Burke & Sass, 2013) or disruptive behaviors (Bicard et al., 2012; Wasnock, 2010), another group of studies mentioned the behavioral patterns are part of the culture and social norms rather than personal selection (Acker, 2006; Allman, 2013). Nonetheless, the major part of the studies about the students' behaviors took place in classrooms rather than school environment (Xi et al., 2017). The classrooms and educational centers are led by the official curriculum (Hass, 1993; Lubicz-Nawrocka & Bovill, 2021; Tabin et al., 2021) and sometimes with the unofficial curriculum that also mentioned in terms of the hidden curriculum (Papadakis, 2018). The curriculum as a set of instructions has been so effective to the design the character and relationships between the students, teachers, and institutions to form the ideological construction (Bigler et al., 2013; Nwachukwu & Omo-Osagi, 2014). Insights of the users in the environment were emphasized and tested through rigorous research in educational centers and open spaces to realize user perceptions (Delialioglu & Yildirim, 2007; Fernandes & Huang, 2012; Mulder et al., 2014; Yang et al., 2013). Taylor and Vlastos (2009) revealed that perceptions of students expose the hidden curriculum in educational centers that differs from the official curriculum. Seemingly, there is a system of beliefs in education that leads educational activities. In this regard, Seifert and Sutton (2009) indicated that educational behaviors are a process rather than an event, and all perceptions and behaviors should be analyzed through a system (Wheldoll & Brodd, 2010).

There are many policies and guidelines for gender inclusion and equality that are recommended by international centers (UN, 2024; UNICEF, 2020). Rwanda initiated the gender policies in 2008 through guidelines for girl's education (MINEDUC, 2008). Guidelines and policies target the administrative department to implement the policies. However, many of those policies have not been implemented, evaluated, and contextualized due to a long history of exclusion and inequality. It is the condition of many countries in the world (UN, 2024).

Rwanda is among the fastest growing countries in Africa with a high level of urbanization and density and young people. The country also faces a high ratio of unplanned settlements in the urban areas. Kigali as the capital of Rwanda faces with increasing number of inhabitants in the

inner parts of the city and also in the surrounding parts through unplanned settlements and rural farmers who are struggling to integrate into the new urban lifestyle. The surrounding area of the city is missing the urban infrastructure and public services such as playgrounds and open public spaces. The available spaces are also overcrowded by the boys who use the spaces for sports, games, and other public activities (Tafahomi, 2021a). However, girls are few in those spaces. Even the schools in the areas cannot meet the needs of the girls.

This research takes place in the northern part of Kigali city in an unplanned settlement to discover the level of inclusion and equality of the girls to use playgrounds, public spaces, and the primary school in the area for their activities through questionnaires to ascertain the level of inclusion and equality from perceptions of the girls. The research questions are formulated as what level of inclusion and equality is available in the open space and schools in the areas? Do the girls believe in their rights as females? Are there any priorities for the boys to use spaces rather than girls? And are there any bully activities in the areas? To answer these questions, the research objectives are designed as to find out the level of inclusion and equality in the area, to compare the answers of the girls in the playground and the school, and to expose any bullying activities from boys to link the connect to the cultural aspects of the inhabitants.

#### **ARGUMENT OF GIRLS' INCLUSION**

Inclusion and equality are part of the social and cultural foundations of each society to demonstrate their approach to genders, immigrants, and minorities in all social activities such as sports, games, and play. The study highlighted that the inclusionary and exclusionary are part of the citizenship practices that are related to social divisions such as age, gender, cultural minorities, and social classes in a wider historical background (Dominelli & Moosa-Mitha, 2014). Allman (2013) demonstrated a historical process in developing the level of inclusion in different societies although it was celebrated just in the past 50 years. In other words, the social inclusion exposes the social structure based on the philosophical, ontological, and ideological factors in each society (Towers, 2005) such as a wide range of discrimination for girls based on ethnical tribes (Kumar, 2010). However, Robinson (2016) underlined that the social inclusion terminology is rooted in the claim for social justice and equality particularly in 20th century movements for human rights.

Krug (2024) reminded gender inclusion and equality as a hot topic in all parts of the world. Keister and Southgate (2012) defined inclusion in terms of acceptance a person in a group or society without determined measurements such as income, gender, and nationality. Borgotta and Montgomery (2000) defined inclusiveness as a factor that the students are open to accepting other groups of participants in social activities. Despite the advocating the gender balance in sports and social activities, laws, policies, and cultural factors have been important factors in limiting inclusiveness (Mikkonen et al., 2021). This theory debated on the political foundation of the inclusion in terms of shifting the political problem to the personal problem. Lund (2014) indicated that inclusiveness is a perceptual quality that without changing the mindset of the participants can be achieved. In this regard, inclusiveness is part of the everyday practices of citizens to learn how to act (Poppel, 2014). For this reason, Sax (2010) argued that gender inequality is part of the system of education in each society to create this image of gender priority. Rwanda emphasized the cultural and educational factors as key figures to image a gender picture in society (MINEDUC, 2008), and the European Commission emphasized gender equality in sport and education (EU, 2024).

There is a trend to expose the participation of girls in sports, games, and social activities in terms of inclusion or inclusiveness quality. However, at the same time, the discrimination and violence issues were concealed under this term (Bondestam & Lundqvist, 2020). Discrimination of girls in sports is not random action but rather a systematic process that is supported by policies and administrative producers (Mikkonen et al., 2021). In addition, seeing

the cases cannot be limited to individual cases but rather a wider environment (Kirkner et al., 2022). The study indicated that violence includes a wider meaning that refers to a failure to be responsible in constructing an appropriate and supportive environment (Krug, 2024). Acker (Acker, 2006) exposed that gender issues are rooted in the culture of a society through institutionalized and organized systems.

Inclusion and gender issues also were interlocked by economic systems and the level of women's wages (Keister & Southgate, 2012). The perception of the priority of gender and power deeply embedded in economic and social structure (Allman, 2013; MINEDUC, 2008), and this discrimination is authorized through job markets and wage systems (Arbache et al., 2010). Particularly, when the job markets take place in informal systems or unplanned settlements (Robinson, 2014; Tafahomi & Nadi, 2021), discrimination becomes obvious (Roy, 2004; Simone, 2008; 2010; 2014), and internalized (Lund, 2014; Poppel, 2014).

There are sets of studies that highlight the disparities in sports participation between girls and boys. A study by the Women's Sports Foundation (FWS, 2018) found that girls are significantly less likely to participate in sports compared to boys due to factors such as societal norms, lack of resources, and limited access to facilities. FWS emphasized the need for inclusive policies and dedicated programs to encourage girls' participation, noting that increased involvement in sports can lead to improved physical health, self-esteem, and social skills for girls. UNICEF reported that gender inequality not only affects public activities event changes the nutrition patterns of genders (UNICEF, 2020) based on traditional gender norms and the types of activities girls engage in. This report signified other critiques on cultural and ideological factors in inclusiveness and gender participation (Acker, 2006; Dominelli & Moosa-Mitha, 2014). Such kinds of the ideological factors resulted in forming stereotypes character and expectation from genders in schools (Papadakis, 2018).

Studies suggested the interpersonal relationships between genders in schools and communities to highlight the violence as a personal action (Salkind, 2008), results of the situation (Bakare, 2012: Kava & Burgess, 2007), and psychological reactions (Tafahomi, 2021b; 2023). However, the critical study indicated that many disruptive and misbehaviors among the students in schools and playgrounds were rooted in cultural backgrounds (Van den Berg & Cillessen, 2015) such as personalization and bully actions (Tafahomi, 2021b). Nonetheless, there are some differentiation between gender in reaction into the environmental factors such as open space in urban and rural areas (Maria et al., 2024), landscape (Jianga et al., 2014), and gardens qualities (Parry et al., 2005). Nonetheless, there are movements to empower women in society for gender balance (EU, 2024; FWS, 2018; MINEDUC, 2008; UNICEF, 2020). For example, the study recommended community-based sports and recreational programs to lead girls to better outcomes in terms of physical fitness and social integration. These programs often provide safe environments, mentorship, and resources specifically aimed at overcoming the barriers that prevent girls from participating (Van der Ploeg & Bull, 2020). Despite the unclear differentiation between boys and girls on the 'out-school rates' in statistical reports (UNICEF, 2020, p. 23), many studies debated the discrimination between boys and girls to access opportunities (Acker, 2006; Bondestam & Lundqvist, 2020; Keister & Southgate, 2012; Krug, 2024). While studies have examined the effectiveness of school-based interventions in promoting girls' participation in physical activities (Jackson et al., 2024) such as female coaches, tailored activities, and safe spaces for girls to play, in the opposite, still, there are many reports on the inequality of genders in sports (Bondestam & Lundqvist, 2020; Kirkner et al., 2022).

Nonetheless, facilitating and supporting girls' sports, activities, and equality is a key agenda in the current time (UNICEF, 2020). This empowering foundation was recommended through different factors such as cultural changes (Acker, 2006; Dominelli & Moosa-Mitha, 2014; Kumar, 2010; Poppel, 2014), social inclusion (Keister & Southgate, 2012; Krug, 2024;

Robinson, 2016; Towers, 2005), economic equality (Allman, 2013; Arbache et al., 2010; Robinson, 2014; Simone, 2014; Tafahomi & Nadi, 2021), political actions (Kirkner et al., 2022; Mikkonen et al., 2021; Sax, 2010), and administrative implementations (Borgatta & Montgomery, 2000; FWS, 2018; MINEDUC, 2008; UNICEF, 2020).

In summary, deficiencies in sports and social activities are rooted in the wider context importantly cultural norms, social class, economic incomes, political ideology, and administrative implementations. All these factors work together to form a picture of gender inequality and discrimination. Even, this belief becomes part of the personal picture of girls to select, perform, or abandon sports, games, and physical activities.

#### METHODOLOGY

This section explained the research methodology, research design and methods, research process, data specifications, and time and context of the research.

#### Methodology

Studies applied quantitative (Coolican, 2014; Millsap & Maydeu-Olivares, 2009; Turner & Gardner, 1994) and qualitative methods (Creswell & Creswell, 2018; Ezzy, 2002) to analyze the opinions of the users (Frankfort-Nachmias et al., 2014; Neuman, 2006) through questionnaires. The questionnaire technique was applied to evaluate students' opinions (Lee, 2005; Xi et al., 2017), people's perceptions (Balram & Dragicevic, 2005; De Campos et al., 2020; Tafahomi et al., 2024), and behavioral patterns (Tafahomi, 2021b; 2022). However, there was a challenge to transfer the question into pupils' language that was recommended interview and ethnographical research (Groat & Wang, 2002; Neuman, 2006).

Despite the advantage of the quantitative questionnaire for statistical analysis (Millsap & Maydeu-Olivares, 2009), a qualitative questionnaire also was applied to analyze different aspects of user's opinions deeply (Creswell, 2013) as a contextual approach in research (Groat & Wang, 2002; Kawulich, 2012; Niezabitowska, 2018). For this reason, questionnaires were designed based on open-ended questions to collect comprehensively the responses of the users (Ezzy, 2002; Given, 2008). Open-ended questionnaires exposed many hidden aspects of the perception and behavior of youth and students (Tafahomi, 2023). These kinds of questions revealed personal, attitudes, agreement, and viewpoints (Gremmen et al., 2016; Harvey & Kenyon, 2013).

## **Research Design and process**

This research was designed based on qualitative methods (Creswell & Creswell, 2018; Ezzy, 2002; Frankfort-Nachmias et al., 2014) to ask questions from respondents (Given, 2008). The questionnaire was designed based on open-ended questions to untie the answers for pupils in any aspect (Neuman, 2006). 14 questions were arranged to discover general information and opinions of the girls on their interests in games, sports, and activities, time of the activities, patterns of the activities, locations, and how they deal with boys in sports and games activities (Cowan, 2001; Silverman, 2004; Tafahomi, 2023). The questions were started with introductory questions and then from general to specific questions due to the ages of the girls.

To check the reliability of the questionnaire, the structure and content of the questions were shared with some female's students at the university to see if the questions included any offensive or ethical issues. The suggestions of the students were applied to the questionnaires and then it was shared with a small group of lecturers, of both genders, who work with the students at the university. Their recommendations were applied to the questionnaire.

## **Research process**

The research team went to the site and asked the girls to fill out the questionnaire, who were interested in collaboration with the research team. The research team selected two main spots for the research including Murama playground area and the school close to the site. Both sites are located in Murama village, an unplanned settlement, in Kigali, Rwanda. The research team visited the playground and asked the girls to fill out the questionnaires. Despite the high level of compassion among the girls to the research team, just a few of them were ready to participate in filling out the questionnaires and answers to the questions. The research team distributed 40 questionnaires between girls on the site and surrounding areas. However, just 15 questionnaires were completed and returned to the research team. Other 25 questionnaires had disappeared in the houses, alleys, and on the way. After, the research team distributed 40 questionnaires among the level 5 in the school juxtaposition of the areas to increase the number of participants. The girl students filled out 25 and returned. Other questionnaires were uncompleted, disappeared, or thrown on the ground.

After that, all the answers were converted into an Excel sheet to make it possible for a comparison between data based on the answers of the students. Data were classified into themes, topics, and meanings. According to the themes and topics some diagrams were drawn to present the general trends in the answers.

## Data specifications:

The data was extracted from the answers of the respondents on the texts of the questionnaires. The texts were descriptive information that was part of qualitative data with the content of the sentences. However, according to the specification of the questions, the research enjoyed the possible quantitative analysis of data based on observed frequencies among the answers such as age, game, and sport selections. The data were selected based on keywords that indicated topics, themes, and meanings in the questionnaires to analyze the similarities and dissimilarities. The data is arranged based on the essence of the questions regarding the research inquiries.

## Time and location:

Murama village is located in the Gisozi cell, Gasabo district of Kigali city, the capital of Rwanda. This village included unplanned settlements, poverty, lack of infrastructure, and missing playgrounds for pupils. The area encompassed farms, forests, and grasslands. The village was scattered morphologically due to topography, ownership, and accessibility. On the top of the hill, a playground is located as a center for play, sports, games, and events such as community gatherings. The playground is a soil open land with two goals at the east and west directions. Farmlands surrounded the playground. However, the area was originally located in the forest and the trees no longer exist. Close to the main road, a school took place. Where questionnaires by the girls were accomplished. The classes of level five were arranged in one-liner buildings on the north of the school, where the research team met the students to fill out the questionnaires. Table 1 represents the location.

#### Table 1



The time of the survey was in February 2023 in the short dry season when the playground was a drought for the activities of the users and schools were open for the pupils. The research took place in the morning between 10 am to 12.30 am and the girls either were on the site or in the classroom due to the shifting working times of schools. It was observed that the girls on the site took help from family and community members to fill out the questionnaires and at the school normally they talked to their friends about the questions.

#### RESULTS

The results included two sets of questionnaires, first, filled out on the playground, and second, in the school. Therefore, the results were presented location-based in this section, due to the differentiation between the sets of answers among the respondents of those from 15 questionnaires on and near the playground and of those from 25 questionnaires at school in the below structure:

#### Specification of users

All respondents were female. Table 2 shows the respondents' specifications. According to data the average age of the respondents was between 13 to 14. However, there was just one case with 17 years old at the school.

#### Table 2

10	playground	playground	Frequencies school	uı	Percent at school
10 years old	2	13	1		4
11 years old	3	20	5		20
12 years old	2	13	3		12
13 years old	5	34	10		40
14 years old	3	20	5		20
15 years old	0	0	0		0
16 years old	0	0	0		0
17 years old	0	0	1		4
Total	15	100	25		100

Rang	e of	girls	'ages	on	the	sites

## Variety of Sport

According to the data, football was the most popular sport and game among the participants and the girls mentioned more sports than games and plays. Table 3 demonstrates the preferences among the girls on different sites.

## Table 3

No	Types of preferred Games	Frequencies at Playground	Percent at playground/100	Frequencies at School	Percent at school/100
1	Football	10	35	21	34
2	Volleyball	5	18	7	12
3	Running	3	11	7	12
4	Basketball	2	8	5	8
5	Hopscotch	2	8	4	7
6	Skipping rope	2	8	4	7
7	Tennis	1	3	3	4
8	Hide and seek	1	3	3	4
9	Tailoring	1	3	2	3
10	Hiking	1	3	2	3
11	Handball	0	0	1	2
12	Stick running	0	0	1	2
13	Acrobats	0	0	1	2

The preferences of the girls to select sports

## Games for girls

A major part of the respondents indicated that games and sports were common with boys including 14 girls (93%) on the playground and 15 girls (60%) at the school. On the other hand, 3 girls (12%) responded that their games are not common with boys, and 7 girls (28%) mentioned that only some of their games are common with boys, while others remain gender specific.

## Time of activities

The girls mentioned that they play games in the morning before class, during break time at 10:00 am, after classes at noon, during an afternoon break at 3:00 pm, evening after classes, and on Saturday times. There was no distinguished differentiation between the two sites.

## Age combinations

On the question about age combination, the respondents reacted differently. On the playground, five participants (33.3%) said that games occur between different ages. Three participants (20%) indicated that games are played within the same age groups. Meanwhile, seven participants (46.7%) were unsure. However, at the school nine (36%) respondents indicated that all ages participate together in the games; however, four respondents (16%) mentioned that games are played between different age groups. Table 4 illustrates the answers of the respondents in detail.

## Table 4

the level of interactions between ages



## Right to play anytime

On the playground, most respondents indicated restrictions on their playtime. Only 1 participant (6.7%) affirmed that they have unrestricted playtime. In contrast, 11 participants (73.3%) stated that they do not have the right to play games at any time. Additionally, 3 participants (20%) were unsure about their playtime rights. Meanwhile, at the school, the respondents indicated restrictions on their playtime. 23 girls (92%) responded "no," highlighting significant limitations on time when they can engage in games. Only one girl (4%) responded "Yes,". Another respondent (4%) mentioned that she was mainly allowed to play only during break times. These responses reveal that most girls face strict constraints on their recreational activities, with limited opportunities to play games freely throughout the day (Table 5).

## Table 5

The Playground The School RIGHTS TO PLAY AT ANYTIME RIGHTS TO PLAY AT ANYTIME NO VES NOT SURE BREAKTIME NO YES NOT SURE BREAKTIME

The right to play at any time.

## Location of activities

On the playground, eight participants (53.3%) favored the playground as their primary play area. Six participants (40%) preferred playing at home and one participant (6.7%) was unsure about their preferred location. While at the school, when asked about their locations for playing games, respondents indicated a clear preference for the playground (40%). Following playgrounds, many girls mentioned that they also enjoy playing games at home (38%). School was the third preferred location (22%), providing structured spaces for play during breaks or after school hours (Table 6).

## Table 6

Preference for	r the location	of play
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Location of play area	Rate	on	Percentage/100	Rate on school	Percentage/100
	playground				
Playground	8		54	13	40
Home	6		40	12	38
Not sure	1		6	0	0
School playgrounds	0		0	7	22

## Commonness of the play areas

The girls were asked if the play areas are common with boys, at the playground, and most respondents indicated shared spaces. Eleven participants (73.3%) said yes. Three participants (20%) said no. Similarly, at the school, most respondents indicated shared spaces. Out of 25 respondents, 19 girls (76%) answered "yes," and just two respondents (8%) said "no,". Detailed data is presented in Table 7.

## Table 7

#### Do different gender play common games?



## Right to play any locations

When it was asked if they had the right to play in any location on the playground, the responses were divided. Seven participants (46.7%) said yes, and another seven participants (46.7%) said no, highlighting restrictions or limitations on where they can play. However, at school, the responses highlighted certain restrictions. Out of 25 respondents, 13 girls (52%) said "no," one of them even specifying that at school, they are limited to playing only on the assembly playground. On the other hand, 10 girls (40%) responded "yes,". The remaining 2 respondents (8%) did not provide an answer.

## Girl zones as a playground

The girls preferred a common area for everyone as a playground rather than a specific game zone area for girls. Nine participants (60%) expressed a preference for a common area. In contrast, four participants (26.7%) preferred a dedicated girls' zone for girls. At the school also, the majority of respondents favored the common area. Out of 25 respondents, 14 girls (56%) expressed a preference for common areas where everyone was. Six girls (24%) responded that they would prefer a dedicated girls' zone. Table 8 indicates the respondents' answers.

#### Table 8

Area preferred of gaming.



## Level of the right to play

For the question of whether they have similar rights to boys to play at the playground, 13 participants (86.7%) on the playground affirmed that they believe they have rights. No participants responded with a firm no. At the school, 18 girls (72%) indicated that they have similar rights to boys. However, 7 respondents (28%) disagreed, stating that their rights to play games are not equivalent to those of boys (Table 9).

## Table 9



the right of the girls as the boys

## The level of prioritizing the game

Girls at the playground were asked if boys prioritized their games over their activities, and the responses were mixed. Six participants (40%) believed that boys do indeed prioritize their

games. In contrast, seven participants (46.7%) felt that boys do not prioritize their games over girls, indicating a belief in equal consideration. Additionally, two participants (13.3%) were unsure. However, at the school, out of 25 respondents, 15 girls (60%) said "yes," indicating that boys often prioritize their games. Eight respondents (32%) disagreed, stating that boys do not prioritize their games over those of girls. The remaining 2 respondents (8%) did not provide an answer (Table 10).

## Table 10

Prioritization the game by boys



## **Bullying** attitudes

At the playground, when was asked if they had ever faced bullying activities by boys to push them away from the gaming ground, the responses were divided. Seven participants (46.7%) reported having experienced such bullying. Another seven participants (46.7%) stated they had not encountered any bullying, and one participant (6.7%) was unsure. However, at the school, the responses were mixed. Out of 25 respondents, 12 girls (48%) reported that they had not experienced any bullying from boys. However, 9 girls (36%) answered "yes," and have been encountered by bullying behaviors excluding them from games. The remaining 4 respondents (16%) did not provide an answer (Table 11).

## Table 11

Bullying activities.



#### FINDINGS

The research findings show six important aspects of the girls' games and sports including girl's perceptions, location of activities, time of activities, level of mixed activities, inclusion, and exclusion.

Girl's perceptions: The girls point out the football game as their desire. Other games and sports were not on the list of selections. However, football game is the simplest sport with less infrastructure in an open space as it is available for all and obvious laws. Nonetheless, football encourages them to competition, teamwork, physical activities, and some kind of social interaction as players and observers. In addition, football is the most popular activity and sport in the world which certainly affects the selection of the respondents. Other games are selected more by the group of girls in the school those who have opportunities to do more diverse activities. Whether selecting football was influenced by boys' preferences is not clear. As a concrete example, the research team observed singing and dancing games by girls. However, none of them mentioned it in the questionnaire.

Location and area for games: the respondents prefer to play on an open playground rather than in school areas. The answers highlight that there are limitations to using locations for the activities. Particularly, the home-based playground reveals another aspect of the limitations to participating freely in the school and playground. Despite the regulations and monitoring of the activities at the school, major parts of the respondents prefer to do activities in open areas such as the playground. It reveals some level of limitation for the girls to follow their preferences. Despite the limitation, the analysis of the question about the 'girl zone' discloses the preference of the girls to use a common area for games and activities. It shows despite limitations and restrictions on the playground, the girls prefer to use a mixed-gender for activities.

Time of activities: The time of the activities by the girls is determined by the other activities such as school, and home-based duties such as morning and lunchtime activities. The girls also do not play the game on Sundays due to the football match activities in the areas by boys. This time frame activity indicates that time is subordinated by the activities of boys in the areas. In addition, the answers of the respondents indicate that there are restrictions on using the playground for activities by girls. Particularly, the girls in the school reveal that this limitation is supported by some kind of regulation by either conventional or regular laws to prioritize the boys' activities rather than girls.

Mixed activities: A pattern of mixed activities presents between locations of different ages. Nonetheless, no facilities or designed areas exist to create such clear specifications for age gaming. The answers could present two sides of the question. On one hand, it shows a mixture of ages in the areas that support social and cultural interactions between ages. On another hand, this result demonstrates a mixed activity between ages but not among the mixed genders. The findings imply some unclear beliefs about gender segregation rather than inclusivity of the activities. However, this current situation is the opposite of what girls want.

Inclusion and exclusion: through analysis of the question about the 'right to play', the findings expose the high level of passion of the girls to have the same right as the boys to use the playground. However, this desire is higher for those who were on the playground rather than at the school. This result could project the influences of a system such as a school on the girl's perceptions and beliefs about their rights and wants. In comparison to the location of the game, there is a sense of freedom between the girls to do the activities outside the school's boundary. It reveals that despite the limitations of the playground, it could provide more opportunities for the girls.

In addition, the answers of the respondents indicate that there is some level of prioritizing for boys in gaming in the area regarding time and location. While 40% of the girls on the playground express this privilege among the boys; however, this rate increased to 60% at the school. These results also disclose a systematic process for the exclusion of girls from activities. Moreover, half of the respondents in both locations including 46.7% on the playground and 48% at the school faced some level of bullying attitudes from boys to limit their activities for using the area or doing their activities. This information could highlight the high level of exclusion and inequality for the girls in the area.

The answers based on the locations reveal that the level of the negative answers to the inclusiveness among the girls at the school is higher than the girls on the playground. However, the number of filled-up questionnaires was more at the schools. Therefore, not only quantitatively, but also qualitatively the girls at the school were more cooperative to retune the questionnaire and fill up the questions completely. In addition, the average age was slightly higher and some level of education. The school facilitates the girls to expose their feelings frankly. However, the answers of girls on the playground are integrated with some level of respect and obeying the conditions.

#### DISCUSSION

The research findings revealed that there was a self-image by the girls to project as a more common, available, and favorite activity in the area in terms of football as a common sport to select. This attitude was called by Sax (2010) in terms of 'Alfa-male' image and stereotype perception by Papadakis (2018). Importantly, when the facility of the games and sports were available, the level of the selection of the respondents was increased. These aspects of the reactions of the students highlighted the influences of the cultural aspects on the selection process through ideological and cultural roots that were criticized by the studies (Acker, 2006; Allman, 2013; Dominelli & Moosa-Mitha, 2014; Kumar, 2010; Poppel, 2014). The results of this research confirmed the results of other studies (Bondestam & Lundqvist, 2020; Mikkonen et al., 2021) based on hidden aspects of exclusion in reports on the inclusivity of girls in sports and public activities. Despite the common policies on inclusion and equality (EU, 2024; MINEDUC, 2008; UNICEF, 2020), the results showed no effective outcomes for these policies.

The girls as the users preferred to play in open spaces playgrounds and homes without any facilities rather than in the school areas. These results indicated some limitations to play at different times and locations. This result indicated social, cultural, and administrative constraints in the areas although these aspects were not part of the research. The administrative structure of the school was similar to other studies (Borgatta & Montgomery, 2000; MINEDUC, 2008) and associated with gender inequality rather than challenge it. This aspect of the administrative limitation was argued by Kirkner (2022), Mikkonen (2021), and Sax (2010) who referred to the political deficiencies. The time-based regulations in the school and the playground for the activities of boys and the community were other factors that influenced the home-based playing. The results were highlighted by the social norms (Keister & Southgate, 2012; Krug, 2024; Robinson, 2016; Towers, 2005), cultural beliefs (Acker, 2006; Dominelli & Moosa-Mitha, 2014; Kumar, 2010; Poppel, 2014), and ideological actions (Kirkner et al., 2022; Mikkonen et al., 2021; Sax, 2010) limited the girls' activities in the areas due to time and locations.

Despite some results illustrating the mixed activities between genders and ages in the areas, the results could not indicate a collaborative procedure. Not only the variance in the answers but also other questions illustrated that mixed activities took place in the area due to the limited sports resources. It was similar to the theory of competition to access resources (Bakare, 2012;

Kaya & Burgess, 2007; Salkind, 2008). There was a level of hidden violence (Bondestam & Lundqvist, 2020) to prioritize the boys' activities rather than girls (Mikkonen et al., 2021) in the areas. As the studies mentioned (Acker, 2006; Krug, 2024), this prioritizing referred to the failure of the supportive systems in the wider context such as cultural, social, and administrative supportive systems.

The level of inclusion in the areas was so low due to gender activities. With a comparison between the 'right to play' and the 'time' and 'location' questions, the results exposed the gap. In detail, the level of the expectations of the girls about the sports, games, and public activities were not as they got in the areas. The results revealed the level of the practices in citizenships (Dominelli & Moosa-Mitha, 2014) was still low to develop inclusivity and equality between genders (Robinson, 2016). The contextual aspects of the inclusion in the areas did not support the girls' activities due to social norms (Acker, 2006). In this case, the studies referred to wider problems in the context that supported inequalities such as social structure (Keister & Southgate, 2012; Towers, 2005) and economic development (Allman, 2013; Arbache et al., 2010).

Exclusion aspects among the girls were high. The results indicated prioritizing activities of boys in the areas. The girls faced bullying attitudes from the boys based on age and gender in both locations. This result exposed the level of violence (Bondestam & Lundqvist, 2020) and revealed a system to support this exclusion based on policies and administrative procedures (Mikkonen et al., 2021). Despite the policy to empower women (UNICEF, 2020) and girls (MINEDUC, 2008), the results could not support the implementation of the policies. Half of the girls expressed the exclusion and bullying activities in the areas, this results also implied the cultural beliefs (Acker, 2006; Allman, 2013), social norms (Robinson, 2014; Tafahomi & Nadi, 2021), political gaps (Kirkner et al., 2022; Sax, 2010), and the administrative failure (Borgatta & Montgomery, 2000; MINEDUC, 2008).

## CONCLUSION

Inclusivity and equality insufficiencies are the big challenge for the many countries that have a strong background on the man-power in society. Despite the policies and guidelines for inclusion and equality, many people particularly women and girls face exclusion and inequality in their areas. Inclusion and exclusion are not just personal manners and attitudes to behave but rather it has been rooted in wider systems including cultural, social, economic, and political contexts. Discovering any traces of exclusion and inequality in the lifestyle of people refers to contextual conditions that either allow, facilitate, or support the exclusion and inequality actions.

The results of the research reveal that the girls face some forms of exclusion and inequality due to playing sports and games on the sites and open spaces. This expression refers to the gender, location, and time priorities of the boys than girls. The sports and games are led by the boys based on their activities in the locations. The patterns of the activities draw a specific schedule for girls based on free time on the sites, the girls can find opportunities to do their activities. The girls also indicate bullying activities on the sites by boys. The bullying activity shows the privilege of the boys based on some cultural backgrounds and social norms among the inhabitants that allow such kinds of actions to take place on the sites. Experiencing exclusion and inequality will result in psychological effects on personality and sense of the place of the girls in the area.

Administrative systems did not support inclusion and equality in the area and so the respondents preferred to use open spaces for their activities rather than the school. Timing, monitoring, and arrangement of activities are the main reasons that girls select the playground or home for

sports, games, and other activities. Despite the policies for empowering women and girls in the country, the implementation of the policies faces insufficiencies due to the answers of the respondents. This gap has rooted in the hidden curriculum in the educational centers that effected not only students but also the users in the open spaces. Apparently, the new generations need more freedom, respect, and collaboration rather than discipline.

Inclusion quality takes place through everyday training and actions in social and cultural contexts. Inclusivity and equality represent social foundations, cultural values, and political awareness. Through daily training and practice to be inclusive and equal the culture of the society takes the form. These qualities require to be advocated at personal, interpersonal, and social levels by policymakers. Inclusivity and equality are cultural values that are changed through today's activities for the future.

#### **Implications**

The results of this research could increase the level of awareness among politicians and the administrative staff that have important roles in politicizing and implementing inclusion and quality in society. Getting feedback from the users is the key step to evaluating the effects and side effects of actions. A systematic inquiry into the perceptions of the girls informs the administrative system about the effectiveness of the actions.

The cultural values and social norms need to be transformed through systematic plans, policies, and strategies to embed inclusivity and equality. Schools and institutions have a key role in developing these qualities through daily exercises and activities. Curriculums are the common understanding of the educational programs to lead students and staff. By adding inclusivity and equality to curriculums as topics, learning objectives, and learning outcomes, the process of planting the quality will be facilitated.

Schools and surrounding areas need to be integrated to support the girls' activities. The current structure of the school could not support the girls' activities based on their wants, desires, and expectations. A time-based activity for genders and between genders could increase the level of inclusion and equality senses among girls.

#### **Conflict Statement**

At the end of the manuscript or before the bibliography, the author(s) should indicate whether the study has a conflict of interest. If there is no conflict of interest, it should read, "We declare that we, as authors of the study, have no interests/conflicts."

#### **Publication Ethical Statement**

Authors should state the ethical statement at the end of the article, before the bibliography, as follows: All the rules stated in the framework of "Scientific Research in Universities and Publication Ethic Codes were followed throughout the process (planning, implementation, data collection and analysis). None of the actions stated under the title "Actions that violate scientific research and Publication Ethics " which is the second part of the codes that must be considered. During the writing process of the manuscript, the rules of scientific ethics and citation were followed, no falsifications were made to the collected data, and this study was not sent to any other academic publication environment for evaluation.

#### REFERENCES

- Acker, J. (2006). Inequality regimes: Gender, class and race in organizations. *Gender and Society*, 20(4), 441-464. https://doi.org/10.1177/0891243206289499
- Allman, D. (2013). The sociology of social inclusion. SAGE Open, 3(1), 1-16. https://doi.org/10.1177/2158244012471957

- Arbache, J. S., Kolev, A., & Filipiak, E. (2010). *Gender disparities in Africa's labor market*. Washington DC: The International Bank for Reconstruction and Development, The World Bank.
- Bakare, T. V. (2012). Effect of seating arrangement on methodology in adult education classes in Lagos, Nigeria: Implication for knowledge creation and capacity building. *Journal of Educational Review*, 5(3), 307-314.
- Balram, S., & Dragicevic, S. (2005). Attitudes toward urban green spaces: Integrating questionnaire survey and collaborative GIS techniques to improve attitude measurements. *Landscape and Urban Planning*, 71(2-4), 147–162. Retrieved from https://doi.org/10.1016/j.landurbplan.2004.02.007
- Bicard, D. F., Ervin, A., Bicard, S. C., & Baylot, C. L. (2012). Differential effects of seating arrangement on disruptive behavior of fifty grade students during independent seatwork. *Journal of Applied Behavior Analysis*, 45, 407-411.
- Bigler, R. S., Hayes, A. R., & Hamilton, V. (2013). The role of schools in the early socialization of differences in boys and girls. In T. R. Martin C., *Encyclopedia on Early Childhood Development*. Montreal, Canada: Centre of Excellence for Early Childhood Development and Strategic Knowledge Cluster on Early Child Development.
- Bondestam, F., & Lundqvist, M. (2020). Sexual Harassment in higher education: A systematic review. *European Journal of Higher Education*, 10(4), 379-419. https://doi.org/10.1080/21568235.2020.1729833
- Borgatta, E., & Montgomery, R. J. (2000). Encyclopedia of Sociology. (2, Ed.) New York: The Gale Group.
- Burke, M. A., & Sass, T. R. (2013). Classroom peer effects and student achievement. *Journal of Labor Economics*, 31, 51–82. https://doi.org/10.1086/666653.
- Cambridge. (2024, 9 4). Cambridge Dictionary Online. Retrieved from Inclusiveness: https://dictionary.cambridge.org/dictionary/english/inclusiveness
- Coolican, H. (2014). Research methods and statistics in psychology (6 ed.). New York: Psychology Press.
- Cowan, R. (2001). *Placecheck: a users' guide*. London: Urban Design Alliance. Retrieved from www.placecheck.com
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches*. SAGE publications.
- Creswell, J. W., & Creswell, D. J. (2018). Research design, qualitative, quantitative, and mixed methods approaches. London: SAGE Publications, Inc.
- De Campos, C. I., Pitombo, C. S., Delhomme, P., & Quintanilha, J. A. (2020). Comparative analysis of data reduction techniques for questionnaire validation using self-reported driver behaviors. *Journal of Safety Research*, 73, 133-142.
- Delialioglu, O., & Yildirim, Z. (2007). Students' perceptions on effective dimensions of interactive learning in a blended learning environment. *Educational Technology & Society*, 10(2), 133-146.
- Dominelli, L., & Moosa-Mitha, M. (2014). Introduction. In L. Dominelli, & M. Moosa-Mitha, *Reconfiguring citizenship: social exclusion and diversity within inclusive citizenship practices* (pp. 1-12). Farnham, UK: Ashgate Publishing Limited.
- EU. (2024, 9 4). *European Union*. Retrieved from Publications Office of the European Union: https://op.europa.eu/en/publication-detail/-/publication/684ab3af-9f57-11ec-83e1-01aa75ed71a1/language-en
- Ezzy, D. (2002). Qualitative analysis: Practice and innovation. Sydney: Allen & Unwin.
- Fernandes, A. C., & Huang, J. (2012). Chinese teacher perceptions of the impact of classroom seating arrangements on student participation. *International Journal of Applied Educational Studies*, 13(1), 49-67.
- Frankfort-Nachmias, C., Nachmias, D., & DeWaard, J. (2014). *Research methods in the social sciences* (8 ed.). New York: SAGE Publisher Ink.
- FWS. (2018). Teen sport in America: why participation matters. Foundation Women's Sports.
- Given, L. M. (2008). *The SAGE encyclopedia of qualitative research methods*. Thousand Oaks, CA: SAGE Publications, Inc. https://doi.org/10.4135/9781412963909
- Gremmen, M. C., VandenBerg, Y. H., Segers, E., & Cillessen, A. H. (2016). Considerations for classroom seating arrangements and the role of teacher characteristics and beliefs. *Soc Psychol Educ, 19*, 749–774. https://doi.org/DOI 10.1007/s11218-016-9353-y
- Groat, L., & Wang, D. (2002). Architectural research methods. New York: John Wiley & Sons INC.
- Harvey, E. J., & Kenyon, M. C. (2013). Classroom seating considerations for 21st century students and faculty. *Journal of Learning Spaces*, 2(1), 1-13.
- Hass, G. (1993). Curriculum planning: A new approach. Boston: Allyn and Bacon.
- Jackson, D., Prochnow, T., & Ettekal, A. V. (2024). Programs promoting physical activity and social-emotional learning for adolescents: A systematic literature review. *Journal of School Health*, online, 1-11. https://doi.org/10.1111/josh.13486
- Jianga, B., Chang, C.-Y., & Sullivan, W. C. (2014). A dose of nature: Tree cover, stress reduction, and gender differences. Landscape and Urban Planning, 132, 26-36. https://doi.org/10.1016/j.landurbplan.2014.08.005

Kawulich, B. (2012). Doing social research, a global context. University of west Georgia: McGraw hill.

- Kaya, N., & Burgess, B. (2007). Territoriality: seat preferences in different types of Classroom Environment 41 classroom arrangements. *Environment and Behavior*, 39, 859-861.
- Keister, L. A., & Southgate, D. E. (2012). *Inequality: a contemporary approach to race, class, and gender*. New York: Cambridge University Press.
- Kirkner, A. C., Lorenz, K., & Mazar, L. (2022). Faculty and staff reporting & disclosure of sexual harassment in higher education. *Gender and Education*, 34(2), 199-215. https://doi.org/10.1080/09540253.2020.1763923
- Kregenow, J. M., Rogers, M., & Price, M. F. (2011). Is there a "back" of the room when the teacher is in the middle? *Journal of College Science Teaching*, 20(6), 45-51.
- Krug, E. G. (2024, 9 4). World Health Organization. Retrieved from World Report on Violence and Health: chrome-

extension://efaidnbmnnnibpcajpcglclefindmkaj/https://iris.who.int/bitstream/handle/10665/42495/924154 5615\_eng.pdf? sequence=1

- Kumar, S. (2010). Inclusive classroom, social inclusion, exclusion and diversity: Perspectives, policies and practices. Deshkal Publication.
- Lee, S. W. (2005). Encyclopedia of school psychology. Thousand Oaks, California: Sage Publications.
- Lubicz-Nawrocka, T., & Bovill, C. (2021). Do students experience transformation through co-creating curriculum in higher education? *Teaching in Higher Education*, Online. https://doi.org/10.1080/13562517.2021.1928060
- Lund, A. D. (2014). Homelessness and social inclusion: The case of project Udenfor in Denmark. In L. Dominelli, & M. Moosa-Mitha, *Reconfiguring citizenship: social exclusion and diversity within inclusive citizenship practices* (pp. 87-94). Farnham, UK: Ashgate Publishing Limited.
- Maria, F.-R., Mohammad, J., Jon, M., Ismat, A., Amin, A., & Subrata, S. (2024). Are gender inclusiveness and rural transformation interlinked? *Journal of Integrative Agriculture*, 23 (6), 2112-2126
- Mikkonen, M., Stenvall, J., & Lehtonen, K. (2021). The paradox of gender diversity, organizational outcomes, and recruitment in the boards of national governing bodies of sports. *Administrative Sciences*, 11(4), 141. https://doi.org/10.3390/admsci11040141
- Millsap, R. E., & Maydeu-Olivares, A. (2009). The SAGE handbook of quantitative methods in psychology. London: SAGE.
- MINEDUC. (2008). Girl's Education Policy. Kigali, Rwanda: Ministry of Education.
- Mulder, R. A., Pearce, J. M., & Baik, C. (2014). Peer review in higher education: Student perceptions before and after participation. *Active Learning in Higher Education*, 15(2), 157-171. https://doi.org/10.1177/1469787414527391
- Neuman, L. W. (2006). Social research methods: Qualitative and quantitative approaches. New York: Pearson Education.
- Niezabitowska, E. D. (2018). Research methods and techniques in architecture. New York: Routledge.
- Nwachukwu, P. O., & Omo-Osagi, A. E. (2014). Curriculum development and teaching methodology for effective learning in secondary schools in Benin City, Edo state. *Journal of Education and Practice*, 5(30), 191-196.
- Papadakis, S. (2018). Gender stereotypes in Greek computer science school textbooks. Int. J. Teaching and Case Studies, 9(1), 48-71.
- Parry, D. C., Glover, T. D., & Shinew, K. J. (2005). Mary, mary quite contrary, how does your garden grow?' examining gender roles and relations in community gardens. *Leisure Studies*, 24(2), 177-192.
- Poppel, M. K. (2014). Citizenship of indigenous Greenlanders in a European nation state: The inclusionary practices of Iverneq. In L. Dominelli, & M. Moosa-Mitha, *Reconfiguring citizenship: social exclusion and diversity within inclusive citizenship practices* (pp. 127-136). Farnham: Ashgate Publishing Limited.
- Robinson, J. (2014). New geographies of theorizing the urban: putting comparison to work for global urban studies. In S. Parnell, & S. Oldfield (Eds.), *The Routledge handbook on cities of the global south* (pp. 57-70). London: Routledge.
- Robinson, Z. F. (2016). Intersectionality. In S. Abrutyn, *Handbooks of sociology and social research* (pp. 477-502). Switzerland: Springer International Publishing.
- Roy, A. (2004). Transnational trespassing's the geopolitics of urban informality. In A. Roy, & N. AlSayyad (Eds.), Urban informality: Transnational perspectives from the Middle East, Latin America, and South Asia (pp. 289-318). New York: Lexington Books.
- Salkind, N. J. (2008). Encyclopedia of educational psychology. London: SAGE Publications Ltd.
- Sarup, M. (1993). An introductory guide to post-structuralism and post-modernism. Herefordshire, UK: Harvester Wheatsheaf.
- Sax, L. (2010). Girls on the edge: the four factors driving the new crisis for girls: sexual identity, the cyber bubble, obsessions, environmental toxins. New York: Basic Books.
- Seifert, K., & Sutton, R. (2009). Educational psychology. Zurich, Switzerland: The Global Text Project.

Silverman, D. (2004). *Qualitative research: Theory, method and practice*. New York: SAGE Publications Ltd. Sim, S. (2013). *Fifty key postmodern thinkers*. New York: Routledge.

Simone, A. (2008). Some reflections on making popular culture in urban Africa. *African Studies Review*, 51(3), 75–89.

Simone, A. (2010). Social infrastructures of city life in contemporary Africa. Discussion Paper, 51, 4-33.

Simone, A. (2014). The missing people: Reflections on an urban majority in cities of the south. In S. Parnell, & S. Oldfield, *The Routledge handbook on cities of the global south* (pp. 322-336). London: Routledge.

Tabin, N., Pannetier, C., & Stolz, D. (2021). Methodology of curriculum development. Journal of Thoracic Disease, 13(3), 2035-2037. https://doi.org/10.21037/jtd.2019.01.89

Tafahomi, R. (2020). Educational outcome of students' group-table arrangement for collaboration in architectural thesis studio. *LWATI: A Journal of Contemporary Research*, *17(2)*, 22-46.

- Tafahomi, R. (2021a). Qualities of the green landscape in primary schools, deficiencies and opportunities for health of the pupils. J. Fundam. Appl. Sci., 13(2), 1093 -1116. https://doi.org/10.43 14/jfas. v13i2.25
- Tafahomi, R. (2021b). Effects of the wall-faced seating arrangement strategy on the behavioural patterns of the students in the architecture thesis design studio. Asian Journal of Assessment in Teaching and Learning, 11(1), 85-97. https://doi.org/10.37134/ajatel.vol11.1.8.2021
- Tafahomi, R. (2022). Educational behavior of the students in the design studios during the pandemic time. *International Journal of Social Sciences and Education Research, 8(4)*, 352-362. https://doi.org/10.24289/ijsser.1164545
- Tafahomi, R. (2023). The Effect of the U-Shaped Seating Method on Cooperation and Competition among Students in the Architectural Thesis Design Studio. *Jordan Journal of Educational Sciences*, 19(1), 239-253. https://doi.org/10.47015/19.1.14
- Tafahomi, R., & Nadi, R. (2021). The transformative characteristics of public spaces in unplanned settlements. A|Z ITU Journal of the Faculty of Architecture, 18(2), 285-300. https://doi.org/10.5505/itujfa.2021.14892
- Tafahomi, R., Nkurunziza, D., Benineza, G. G., Nadi, R., & Dusingizumuremyi, R. (2024). Assessment of residents' perception of possible benefits and challenges of home vertical gardens in Kigali, Rwanda. Sustainability, 16, 3849. https://doi.org/10.3390/su16093849
- Taylor, A., & Vlastos, G. (2009). Linking architecture and education: Sustainable design for learning environments. Albuquerque: University of New Mexico Press.
- Towers, G. (2005). West Virginia's lost youth: Appalachian stereotypes and residential preferences. *Journal of Geography*, 104(2), 74-84.
- Turner, M. G., & Gardner, R. H. (1994). Quantitative methods in landscape ecology. London: Springer.
- UN. (2024, 9 7). Sustainable Development. (Department of Economic and Social Affairs, UN) Retrieved from Gender equality and women's empowerment: https://sdgs.un.org/topics/gender-equality-and-womens-empowerment
- UNICEF. (2020). *Gender Equality*. UNICEF: Global Annual Results Report 2020. Retrieved from https://www.unicef.org/reports/global-annual-results-2020-gender-equality
- Van den Berg, Y. H., & Cillessen, A. H. (2015). Peer status and classroom seating arrangements: A social relationship analysis. *Journal of Experimental Child Psychology*, 130(2), 19-34.
- Van der Ploeg, H. P., & Bull, F. C. (2020). Invest in physical activity to protect and promote health: the 2020 WHO guidelines on physical activity and sedentary behavior. *International Journal of Behavioral Nutrition* and Physical Activity, 17, 145 https://doi.org/10.1186/s12966-020-01051-1
- Wasnock, D. P. (2010). Classroom environment: Emphasis on seating arrangement. Mathematical and Computing Sciences Masters, Paper 17, Retrieved from http://fisherpub.sjfc.edu/mathcs\_etd\_masters/17
- Webster. (2024, 9 4). Merriam-Webster. Retrieved from Diversity: https://www.merriam-webster.com/dictionary/diversity
- Wheldoll, K., & Brodd, L. (2010). Classroom seating arrangement and classroom behaviors. In K. Wheldall (Ed.), Developments in educational psychology (pp. 181-195). London: Routledge.
- Xi, L., Yuan, Z., YunQui, B., & Chiang, F.-K. (2017). An investigation of university students' classroom seating choices. *Journal of Learning Spaces*, 6(3), 13-22.
- Yang, Z., Becerik-Gerber, B., & Mino, L. (2013). A study on student perceptions of higher education classrooms: Impact of classroom attributes on student satisfaction and performance. *Building & Environment*, 70(15), 171-188.