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Teaching Geographical Concepts and Skills in Primary Social Studies

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Abstract

Geography is a subject that helps children understand and appreciate the world they live in. The subject enables them to make thoughtful decisions and take responsible actions towards sustainable living. This article focuses on the teaching of geographical concepts and skills in the primary social studies curriculum. Questions on what is geography, why teach geography, what are the key geographical concepts and skills in the primary social studies curriculum and how can these concepts and skills be taught will be elaborated.

What is Geography?

Geography is one of the several subjects that make up the primary social studies curriculum in Singapore. Like history, economics, sociology and political science, geography is not taught as a separate subject but is integrated with these subjects under the umbrella subject called social studies. The word "geo" means "Earth" and "graphy" means "writing" so geography is about the study of the Earth. Geography asks questions about places in order to understand where these places are as well as what makes them distinct from one another and gives them their unique place identities. It also asks questions about the interactions and relationships between places and the people living there, the impacts of these interactions and what can be done to ensure sustainable living for future generations. Such questions about places, ranging from local to global in scale, can be raised (Smeaton, 1998).

Why Teach Geography?

The purposes of studying geography (Catling & Willy, 2009) in primary social studies are many and they can contribute towards the development of children to be informed, concerned and participative citizens (MOE, 2012).

- Geography helps students make sense of their own experiences in the world, that is, to develop their everyday geographies. Everyday geographies refer to the knowledge bases students build up over time through their interactions with a variety of landscapes on a daily basis (Catling & Willy, 2009).
- It develops students' awareness of other people and their cultures, and places and environments in the wider world.
- It engages students in geographical inquiry about the spatial matters and issues about the world they live in by using a variety of approaches and tools such as maps and photographs.
- It fosters an attitude in students that values the Earth as their home and helps them understand the importance of sustainable living.
- It develops students to be thoughtful and responsible global citizens who are conscious of the

impacts of their decisions and actions on their own lives and others and on places far and near.

Key Geographical Concepts

In the primary social studies curriculum, the key geographical concepts included are place, space, environment and human-environment interaction (MOE, 2012).

Place, Space, Environment and Human-Environment Interaction

A place has physical and/or human features that make it unique from other places and gives it a distinctive identity. Through our experiences with places, whether direct or indirect, we develop images or perceptions of places, cultivate a sense of place and a connection (or a disconnection) with places that we are familiar with, read or hear about. Hence, places exist as both real and perceived entities and people's ideas and feelings about the same places can differ from person to person (Catling & Willy, 2009).

As places are physical entities, they occupy space. Space refers to the area on the Earth's surface and is concerned with the distributions of features, the resultant patterns created and their effects on people and the environment, and the processes that contribute towards such distributions (Catling & Willy, 2009). As spaces can vary in size, we can say that places differ in scale, that is, places can be at a local, national, regional or global scale.

The concept of environment refers to "the circumstances or conditions that surround one" (Attfield, 2003 cited in Holden, 2008, p 26). It is the sum total of the conditions within which an organism lives (Whittow, 1984, p 171). In a nutshell, it means the "surroundings". Generally, a natural environment refers to the surroundings which is formed naturally. It has naturally occurring features such as natural vegetation, soil, weather and climate, drainage features and landforms. Some examples include the forest and desert. The human environment, on the other hand, refers to the surroundings that is created or influenced by people and their activities. In such an environment, man-made features can be found. Some examples would be coastal settlements and farmland.

Lastly, human-environment interaction refers to the relationship between people and their environments and the impacts they have on one another. The environment can play a part in determining the kinds of crops cultivated and the farming methods adopted. However, the use of technology can overcome environmental constraints for people to grow crops that were previously impossible. For instance, the introduction of greenhouses has enabled farmers in the tropics to grow temperate crops such as strawberries and cherry tomatoes.

In the primary social studies curriculum (MOE, 2012), the places students will study include their schools, neighbourhoods, housing estates, farms, transport networks, heritage places and recreational places. They will learn that as space is limited in Singapore and there are competing demands for different types of land uses arising from people's changing needs, aspirations and expectations, there is a need to optimize and balance the use of space amongst these demands. Students will learn that although Singapore is a city in a garden, it is an urbanized human environment and it is important for them to care and protect the environment to ensure sustainable development and quality living for every one and the future generations.

How to Teach Geographical Concepts?

Teachers can teach students geographical concepts by providing them certain experiences with places. They can provide them direct experiences such as conducting a walk in the school ground or around the neighbourhood or doing fieldwork at a park. They can provide vicarious experiences for their students too. For instance, they can show them photographs or videos or read them stories about places or discuss with them issues pertaining to places.

Teaching Using Deductive and Inductive Approaches

Besides the provision of experiences with places for students, teachers need to think about the teaching approach. Good geographical teaching builds up students' understanding of concepts, and is not about providing them a laundry list of geographical facts such as names of places and information about crop and mineral productions (Brophy & Alleman, 2007). Conceptual teaching can be achieved through deductive or inductive approaches. In the former, the concept definition is first provided before the examples are given, whereas in the latter, the examples are shown first, followed by the definition of the concept (Van Cleaf, 1991). The two approaches are shown in Strategy Example 1 below whereby the concept of physical environment is taught inductively and the concept of human environment is taught deductively.

Strategy Example 1: Using Conceptual Approaches for Teaching Primary 6 Social Studies

Topic: The Different Environments of Southeast (SE) Asia

Level: Primary 6

Time Frame: 1 period

Concepts: Physical environment, human environment

Generalization: A physical environment is made of naturally occurring features whereas a human environment is created by people by changing the naturally occurring features through their activities.

Unit Question: How does the physical environment differ from the human environment?

Specific Instructional Objectives: By the end of the lesson, students will be able to

- distinguish between physical environments and human environments.
- provide some examples of physical and human environments.

Equipment and Resources: A LCD projector, a white screen, a laptop, slides with photographs

Learning Environment: Classroom

Suggested Instructional Activities

Tuning-in (2 minutes)

1) Teacher asks students for their understanding of the word "environment" before providing the definition.
2) Teacher informs students that the lesson will focus on the different types of environments in SE Asia - a region whose existing features make it unique from the areas outside it and give it a distinctive

identity.

Development (20 minutes)

1) Teacher shows students a series of photographs on slides. These are examples* and non-examples** of the physical environments that are found in SE Asia.
2) Teacher helps students to identify the critical and non-critical attributes of the concept of physical environment using the examples.
3) Teacher asks students to provide additional examples and non-examples of physical environments in SE Asia.
4) Teacher assists students to label the concept of physical environment and work out an appropriate definition that includes the critical attributes.
5) Teacher presents examples and non-examples of physical environments simultaneously and asks students to distinguish between them and justify their choices.
6) Teacher provides additional practice that requires students' justifications of choices of physical environments.
7) During the lesson, teacher should point out that the non-examples of physical environments are actually the examples of human environments before providing its definition and highlighting its critical attributes.

Conclusion (3 minutes)

1) Teacher summarises the lesson and reiterates the key attributes of physical and human environments.
2) Teacher provides an exercise for students to compare the different types of environments.

Note on Resources

* Photographs with examples of physical environments can include forests, mountains, coasts, deserts and oceans.

** Photographs with non-examples of physical environment can include a forest that is logged, a hill resort, a coastal settlement, a persimmon orchard in the desert and an oil-rig in the middle of the ocean.

Teaching Using Inquiry

Besides using deductive and inductive approaches, another way to teach geographical concepts and generalizations in primary social studies is to frame the lessons around key questions. The inquiry approach is one in which teachers assist students to develop abilities to ask questions about the spatial characteristics of a place like a neighbourhood and to seek answers through inquiry activities such as research and fieldwork (Carter, 1998; Catling & Willy, 2009). Inquiry questions can be generated by teachers or students. Teachers can raise questions such as those in Figure 1 below and get students to investigate. Alternatively, teachers can get students to ask their own questions about a place. In student-initiated inquiry, teachers play the role of a facilitator and help students shape their questions and guide them in their inquiry. Interestingly, Rowley (2006 cited in Catling & Willy, 2009, p 65) has argued that inquiry initiated by teachers and structured around questions in Figure 1 may inhibit students from being engaged with matters that are truly meaningful to them, making proposals or even taking actions.

Figure 1: Five Key Questions for Traditional Geographical Inquiry

1 What is the place like?
2 Why is this place as it is?
3 How is this place connected to other places?
4 How is this place changing?
5 How would it feel like to live in this place?

The decision of whether to have teacher-directed inquiry or student-directed inquiry or a combination of both is determined by many factors such as the syllabus, instructional objectives and student profiles. If the lesson outcome is to develop students to take more initiative in inquiry, then student-directed inquiry is the choice. Usually, student-directed inquiry is more suited for older students who are more mature and self-directed. For younger students, teacher-directed inquiry tends to work better.

Regardless of who initiates the inquiry, in essence, inquiry is about facilitating students to be connected, involved, aware and challenged (Catling & Willy, 2009). Students are connected because the inquiry is relevant and interesting to them. They are involved because of their active engagement in the inquiry. They are aware because they can internalize what they have learnt from their inquiry and link to their senses, feelings and thoughts. They are challenged to think, apply, adapt and develop their understanding, skills and attitude. Through the inquiry, they learn to be citizens by expressing their views and ideas and acting on their considered judgments and proposals.

The quality of inquiry hinges on the types of key questions asked. Catling and Willy (2009) have argued that effective and stimulating key questions will promote students' exploration of the complex world around them and their ability to link geographical concepts and recognize the existing patterns and processes at the place of study. Dinkele (1998) elaborates that key questions are important to drive instructional planning and teaching. They are derived from the intended outcomes of the curriculum and unlock the door to learning about the key ideas and processes implicit in the curriculum. They are signposts for the topic of study and inquiry. Good key questions are open ended in nature, generate more questions and require investigation before the answers can be derived. Key questions can raise students' awareness of issues that are relevant, important and meaningful to them. They may be descriptive, explanatory or speculative, moral, value-based or reflective. The questions provide opportunities for students to share their findings and interpretations and take actions to change or improve what they have investigated. They can also promote research and fieldwork skills needed for the conduct of inquiry by students.

The inquiry frameworks for teaching geographical concepts by Geoff Dekele (1998) and Paula Owen and Wendy North (2006, cited in Catling and Willy, 2009, p 67) are shown in Figure 2. Generally, both frameworks are similar despite the differences, with Dekele's focus on stages and Owen and North's focus on questions. Their similarities lie in the generation of key questions, data collection, analysis and presentation and reflection.

An example of teaching primary social studies using inquiry is shown in Strategy Example 2.

Figure 2: Frameworks for Geographical Inquiry

	Dekele's (1998) Framework	**Owen and North's (2006) Framework**
Stage 1	• Awareness raising (orientation) - pupils relate their prior knowledge and experiences to the inquiry • Generating enabling questions (focusing) -	• Starting point and focus (Use a mix of given and pupils' own questions about a place or an environmental issue as a starting point)

	generation of questions	• As a class, group the questions, choose the most relevant questions to investigate and decide where to start
Stage 2	Collecting and recording information (gathering)	• How will we gather, analyse and present information?
Stage 3	Processing the gathered information (analysis)	• What have we found out? • Do we all share the same point of view? • How does this affect our lives? • What does it mean to us? • Is there more we need to know?
Stage 4	Drawing conclusions from the processed data	
Stage 5	Sharing the learning and affective outcomes	• What do we do with the knowledge? • Who can we share with? • What views and proposals do we want to express? And how? • What has this experience taught us? • How do we know? • Has it changed our thinking, and if so, how? • What new questions do we have?
Stage 6	Evaluation by all concerned (reflection)	

Strategy Example 2: Using Inquiry for Teaching Primary 4 Social Studies

Topic: Discovering Chinatown

Level: Primary 4

Time Frame: 2 periods

Concepts: Heritage, conservation, balance

Generalization: Conservation of heritage sites is about balancing the various needs and aspirations of a society.

Unit Question: How should heritage sites be conserved?

Specific Instructional Objective: By the end of the lesson, students will be able to apply inquiry skills to find out about the conservation of Chinatown as a heritage site.

Equipment and Resources: A LCD projector, a white screen, a laptop, slides with pictures

Learning Environment: Classroom

Suggested Instructional Activities

Tuning-in (5 minutes)

1) Teacher shows students pictures of Chinatown on slides and asks them to identify the place.
2) Teacher asks students what they know, think and feel about it.
3) Teacher tells students that Chinatown is a heritage site that is conserved and asks for their understanding of

the words "heritage" and "conservation" before explaining to them.

Development (50 minutes)

1) Teacher tells students that they are going to find out more about the conservation of Chinatown and asks them to generate questions of interest to them.
2) Teacher writes down students' questions on the whiteboard, gets the class to group the questions into categories, choose the most relevant questions to investigate and decide where to start.
3) Teacher organizes students into groups of 4 and assigns each group to one category of questions about Chinatown for investigation.
4) Teacher works with each group to decide the best way to collect the data – it can be interviews, taking pictures, doing surveys, doing library search, etc.

Conclusion (5 minutes)

1) Teacher concludes the lesson by going over the concepts of heritage and conservation.
2) Teacher foreshadows what students will do for the inquiry in the next few lessons.

Note: The inquiry lessons will take more than two periods to complete. In the subsequent lessons, teacher will need to provide time for groups to collect their data and guide them in the data analysis and presentation. Teacher will also ask groups to present their work to the class and reflect on their learning experiences.

Key Geographical Skills

Students can better acquire geographical knowledge of spatial characteristics of places if they are equipped with certain geographical skills. These could be skills related to the use of pictures, photograph, maps and globes (Mackintosh, 1998, Catling & Willy, 2009). However, according to Lambert (2007), these skills should be subordinate to the development of student conceptual understanding of geography.

How to Teach Geographical Skills?

Using Pictures and Photographs

One cannot assume that students know how to look at, understand and interpret pictures and photographs. Research has shown that young children tend to focus on details and see them as unconnected instead of seeing the picture or photograph as a whole. Hence, they need to be taught how to select relevant details and see the whole rather than the parts (Mackintosh, 1998). Mackintosh (1998) has suggested several ways to help students "see", "read" and "interpret" pictures which are described in the subsequent paragraphs. These are:

- Provide pictures/photographs with titles to help students gain an overview of what each is about.
- Help students see the whole picture/photograph by directing their attention to the foreground, middle ground, background, the left and the right side of the picture/photograph and use appropriate positional language such as near to, next to, far from, north of, east of, etc.
- Put labels with specific vocabulary around pictures/photographs as appropriate to guide students' picture reading.

Once students know how to "see" pictures/photographs, teachers can proceed to help them "read" them. Reading requires students to examine them closely so that relevant details can be gathered, categorised and compared. Teachers can encourage and help students to:

- Sort pictures/photographs and explain their sorting, for instance, sort primary activities from

secondary activities, physical environments from human environments or damaged environments from improved environments.

- Sequence collections of pictures/photographs, for example, order photographs of highlands to lowlands or the stages of padi cultivation.
- Join or overlap successive pictures/photographs into a panorama.
- Appreciate the size, scale and distance, for example, talk about how big, how near or how far the features are.
- Caption pictures/photographs to capture their essence.
- Handle increasingly complex or unfamiliar pictures/photographs to compare and generalize.
- Make a sketch of the photograph and label, annotate and colour specific features of the sketched landscape.

When using pictures/photographs in teaching, it is important that students do not assume or take away images of the neighbourhood, the country of Singapore, the Southeast Asia region or the continent of Asia based on only a few pictures/photographs they see. This will help to avoid the situation whereby students form negative stereotypes of a place. Hence, it is essential for students to see a range of representative photographs that depicts the variety of life and features of a place (Catling & Willy, 2009).

The last step is to teach students to "interpret" the pictures/photographs. Photograph interpretation is influenced by students' prior knowledge, perceptions, attitudes and experiences with the places in the photographs. Some of their perceptions are biased and need to be challenged. The teacher's role then is to ask different types of questions to help students in their interpretation (see Figure 3 below).

Figure 3: Questions for Seeing, Reading and Interpreting Photographs taken from Mackintosh (1998)

Categories of Questions	Examples of Questions
Observation/Description	• What can you see in the picture?
Interpretation, Explanation, Classification	• Where do you think this is? • What sort of place is it? • What is the person doing? • Why is the person doing what he is doing? • Why is it like this?
Comparison	• Is this place like Singapore? • Are there any similarities? • Are there any differences?
Evaluation	• Would you like to live in such an environment? • What do you think of the way people change their environment?
Extrapolation	• What do you think would be the impact of human actions on people and their environments?
Problem solving	• What can be done to reduce human impacts on the environment?

Using Maps for Map Reading

Maps are tools for people to find places, get to places and know about the environment of places. A map reveals what the environment of a place is like and the existing physical and human features that give the place its special identity. It shows the relationships between features and the influence they have on one another. It also influences our decision making and problem solving (Catling, 2005; Wiegand, 1993).

Different types of maps exist, for example, political maps, street directory maps, tourist maps, rainfall maps, temperature maps, topographic maps, relief and drainage maps and maps showing distributions of natural resources and crop cultivation. The choice of maps depends on the purpose of use. For instance, street maps are useful for road drivers and tourist maps help tourists navigate in places of attraction. It is important to expose students to different types of maps over time and these should be age and developmentally appropriate for students. Although maps differ from one another, they have common elements such as a title, a plan view, a legend or key, symbols, names of places, a north arrow and grid lines.

Studies have shown that children at an early age develop geographical skills (Boardman 1983; Catling, 1995; Stoltman, 1992). Their map or picture drawing of places often precedes their development in reading and writing skills. Such development in map understanding, spatial awareness and competencies continue with age and experience. Maps are what drive children to be curious about their world. The implication is that it is never too early to teach children map reading and globe skills.

Research has also shown that there is a strong link between children's environmental experiences and the development of their mapping skills (Boardman, 1983; Catling, 1995; Stoltman, 1992). The implication is to provide children with opportunities to explore their environments, both near and far, indoor and outdoor, using maps. These research findings confirm that map reading skills have a place in the primary school curriculum.

According to Wiegand (1993), students need to acquire the following knowledge and skills in map reading:

- Understand that maps show the plan views of ground features when viewed from above.
- Interpret map symbols and understand that the information on the map is selective and is determined by the purpose of the map.
- Locate places using grid lines that are expressed as numbers or/and letters on maps.
- Tell directions using cardinal and compass points.
- Interpret the relationships between map features.

Whenever appropriate, map readings skills should be integrated into the primary social studies lessons and be reinforced in other subjects. Since such skills are developmental, teachers need to revisit and build upon what their students have learnt previously during lessons.

a) ***Plan View***

Maps give a bird's eye view or plan view of the features on the ground. Strategies for teaching plan view in primary social studies include the following and they range from simple to

difficult:

- Ask students to place their stationery or home objects on their desks and draw the view from above.
- Design a worksheet that shows the plan views of certain objects and ask students to guess what the objects are. Alternately, ask students to match the correct plan views with the pictures of objects.
- Ask students to draw the plan views of their bedrooms, classrooms or parts of the school ground. Students can base their drawings on the actual places, photographs and their memory.
- Give students a map of the neighbourhood with certain places marked. Students can walk around the neighbourhood to locate the places, take photographs and stick the photographs on the map on the class notice boards.

b) ***Legend and Symbols***

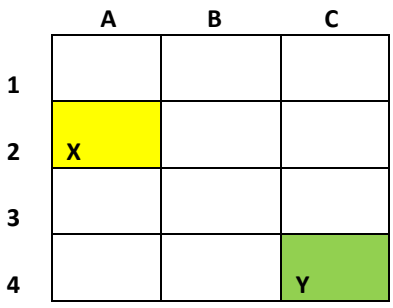
The legend explains the meanings of symbols used on the map. Symbols are signs on the map that represent the features on the Earth's surface. Symbols can be pictorial or abstract like linear, point or area symbols. Linear symbols represent line features such as a road or a river. Point symbols represent point like features such as a building or a bridge and area symbols represent features that occupy considerable spaces such as a lake or a padi cultivation area. Standard colours are used for symbols - green for vegetation, blue for water bodies, brown for landforms and red or black for man-made features. Some strategies for teaching symbols in primary social studies lessons are:

- Match the correct symbols with their meanings.
- Draw symbols for a list of features provided by teacher.
- Identify symbols provided by teacher.
- Give students a neighbourhood map and ask them to identify its marked features by making reference to its legend. Teacher can extend the activity by asking students to describe the functions of the features found in the neighbourhood or ask them to compare and contrast the different land uses.

c) ***Locations***

All maps are marked by grid lines. These are vertical and horizontal lines that are used for locating places on maps. The grids can be marked using the alpha-numeric system on a road map, the four-figure grid system or the latitudes and longitudes on an atlas map or a globe. In the alpha-numeric system, the columns are marked by letters and the rows are marked by numbers. To get the coordinates of places, the columns are always read before the rows. In Figure 4, the coordinates of X is A2 and Y is C4. One way to remember is 'C' comes before 'R'. C stands for column and R stands for row.

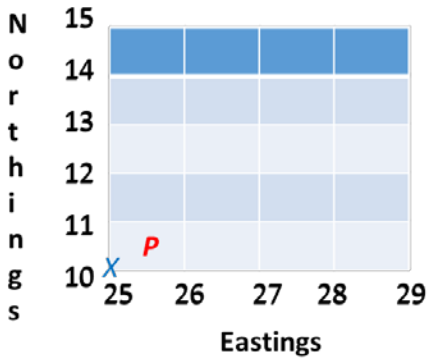
Figure 4: Locations Using Coordinates



In the four-figure grid system, both the horizontal and vertical lines are marked by numbers. The vertical lines are called eastings because the numbers increase as

one goes eastwards and the horizontal lines are called northings because the numbers increase as one goes northwards. To read the position of a feature, locate the grid square in which the feature is found and read the easting and northing at southwest corner of the grid square. In Figure 5, the 4-figure grid for P is 2510 (as indicated by X, the southwest corner of the grid square). Always read the easting first followed by the northing.

Figure 5: The 4-figure grid square for P is 2510.



For globes and maps in the atlases, horizontal and vertical lines are found as well to help users read the positions of places. Latitudes are imaginary horizontal lines that encircle the Earth with the biggest circle as the Equator and the smallest circles as the North Pole and South Pole (actually they are points). The Equator, the longest latitude, divides the Earth into two hemispheres – the Northern Hemisphere and the Southern Hemisphere. The Equator is measured as 0 degree and the degrees for the latitudes north of the Equator increases until the North Pole which is a point and is indicated as 90 degrees North. Similarly, the degrees for the latitudes south of the Equator increases until the South Pole which is a point and is indicated as 90 degrees South. In other words, there are 90 degrees of latitudes north of the Equator and 90 degrees of latitudes south of the Equator. All latitudes are complete circles except the North Pole and South Pole. They also get progressively shorter when moving from the Equator towards the Poles.

Longitudes are imaginary lines which are drawn in a north-south direction from the North Pole and to the South Pole. They are also measured in degrees and there are 360 degrees of longitudes. Each longitude is a semi-circle and all are of equal length and they are measured from the Longitude 0 degree called the Prime Meridian or Greenwich Meridian that passes through Greenwich in London. They are often called meridians and are measured east or west of the Prime Meridian. There are 180 degrees east of the Prime Meridian and 180 degrees west of it. The longitudes are very close together as they near the poles but are farthest apart at the Equator. To find the position of any place, refer to the latitude first before the longitude.

Location can be taught in primary social studies lessons using the following strategies:

- Get students to draw a grid with numbers on one side (rows) and letters on another side (columns). One student will throw a stone on the grid. The first person to shout out the correct coordinates where the stone lands, skips to the square to pick it up and hops back again to the starting point. He will throw the stone and another student who gives the correct answer will repeat the whole process.
- In the activity of classroom orienteering, stick 10 post-it labels with letters underneath the tables, cupboards, etc. Mark the locations on the classroom plan but label each with a number. Ask the first

pair of students to use the plan to locate the post-it labels and fill up the worksheet devised. A timer can be used to inject some competition and fun. Ask each pair who has completed the orienteering course to set a new course for the next pair, putting the labels in different locations and making a new plan. The activity can be extended to outside the classroom.

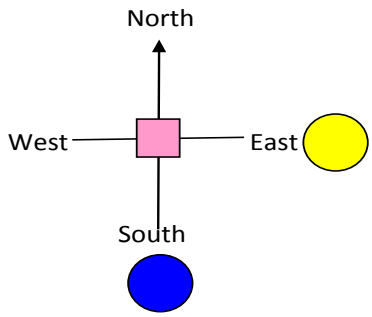
- Whenever places are mentioned or taught, teachers can make use of the opportunity to mark the positions of the places on the wall maps or get students to mark the positions.
- Teachers can also encourage students to look up the locations of places that are mentioned in the newspaper articles of interest.

d) ***Directions***

When teaching directions, Parker (2009) has cautioned against making statements such as "north is at the top of the map" and "south is at the bottom of the map" as they can lead to confusion for students especially when different map projections are used. Reference to north as up and south as down should not be taught because when we speak of the Earth, down means towards the centre of the Earth and up means away from the centre.

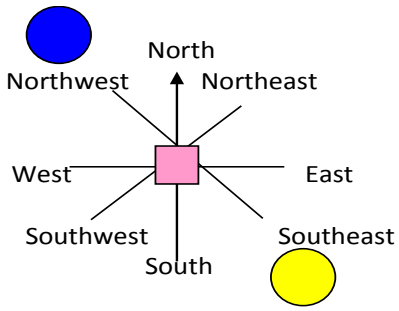
The north arrow can be used to find the direction of one place from another on the map. The north arrow tells us where the main or cardinal points are – north, south, west and east. These indicate general directions. For young students, start with the cardinal points first. An example of how to read direction using cardinal points is shown in Figure 6. For older students, their learning can be extended by using other compass points between the cardinal points - northeast, southeast, southwest and northwest. These compass points help to state the directions more accurately. An example of how to read directions using compass points is shown in Figure 7.

Figure 6: Directions Using Cardinal Points



- The blue circle is south of the pink square.
- The yellow circle is east of the pink square.

Figure 7: Directions Using Compass Points



- The yellow circle is southeast of the pink square.
- The blue circle is northwest of the pink square.

Some strategies for teaching directions in primary social studies lessons are:

- With the aid of a compass, label the classroom walls North, South, East and West and get students to practise giving directions of places/features.
- Pair up students and name themselves as either A or B. A will mark any two places, X and Y on a map provided. B will then provide locations of X from Y and Y from X. A will check B's answers. Reverse the roles. B will now mark two places on the map, P and Q and A will provide the direction of P from Q and from Q to P. B will check A's answers.
- Get students to provide the directions of places in the neighbourhood.

Using Maps for Map interpretation

Once students have learnt how to read maps, they are on their way to read maps to learn and interpret maps. This means that they will be able to visualize what the place is actually like when it is shown on the map and interpret the information there to make hypotheses about the environment and the types of human activities that take place by drawing on their knowledge and experiences of the places under study. For instance, comparing a map showing padi cultivation and a map showing the relief of Southeast Asia will make students realize that padi cultivation is mainly concentrated on the lowlands of Southeast Asia, and in places with higher elevations, the land needs to be terraced to simulate flat lowland conditions for the flooding of padi fields. Similarly, by examining the world climatic map and world natural vegetation maps, students can make the hypothesis that the climatic conditions influence the types of natural vegetation that exist. In tropical climate where there is high temperature and rainfall, tropical rainforest is the dominant vegetation. However, one cannot assume that students' map interpretation ability develops automatically once they have acquired an understanding of the language of map reading. Teachers still need to guide students to develop their interpretation skills by drawing on their existing knowledge and experiences of the places and support their learning with a range of resources like photographs and videos showing places on maps, maps of different types and other relevant resources. Students also need opportunities to practise their map reading and interpretation skills.

Using Globes

Globes are three-dimensional representations of the Earth. They differ from maps which represent the Earth in a two-dimensional manner, and therefore, contain some distortions in the sizes and shapes of the Earth's land and water surfaces represented. Globes, on the other hand, represent the sizes and shapes of the Earth's surfaces with no distortions. Globes are useful models of the Earth to help students understand many geographical phenomena such as day and night, seasons, world climate and vegetation and relative sizes of countries, continents and oceans (Mackintosh, 1998). Hence, they should be introduced during teaching to help students better appreciate the Earth on which they live. Mackintosh (1998) has suggested some strategies for introducing globe skills in the classroom, and these are:

- Encourage young students to play with inflatable globes and help them recognize the colours used for representing land and sea.

- Help students recognize that the globe models the planet Earth.
- Teach students to locate the continents, oceans, countries, capitals, the Equator, the North and South Poles, the Northern and Southern Hemisphere and even the Tropics of Cancer and Capricorn if they are ready for extension of learning.
- Teach students to recognize similarities of places on the same latitudes and differences of places on different latitudes in terms of say, climatic characteristics and vegetation types.

Conclusion

Geography can contribute towards citizenship education in primary social studies by providing students with the necessary knowledge about the world around them, developing their skills in inquiry, map reading and interpretation and other geographical skills, and honing their dispositions to be conscious of the impacts of their decision making and actions on themselves, other people and the environment. Through the learning of geographical concepts and skills in primary social studies, students can learn to be informed, concerned and participative citizens.

References

Boardman, D. (1983). *Graphicacy and geography teaching*. London: Croom Helm.

Brophy, J. & Alleman, J. (2007). How can I teach geography and anthropology content more meaningfully? In *Powerful social studies for elementary students* (2nd ed., pp. 114-137). US: Wordsworth Cengage Learning.

Carter, R. (1998). *Handbook of primary geography*. UK: The Geographical Association.

Catling, S. (1995). *Placing places*. Sheffield: The Geographical Association.

Catling, S. (2005). Children's understanding of maps: Implications for teaching mapping skills. In Lee, C. K. E. & Chang, C. H. (Eds) (2005). *Primary social studies: Exploring pedagogy and content* (pp. 74-98). Singapore: Marshall and Cavendish International Pte Ltd.

Catling, S. & Willy, T. (2009). *Teaching primary geography*. Exeter: Learning Matters.

Dinkele, G. (1998). Geographical questions and enquiry. In R. Carter (Ed.) *Handbook of primary geography* (pp. 153-162). London: The Geographical Association.

Holden, A. (2008). *Environment and tourism*. NY: Routledge.

Lambert, D. (2007). Social studies and the informed citizen: Perspectives from a geographer in education. In Wong, T. C., Wang, Z. P., Rahil, I. & Kho, E. M. (Eds.). *Teaching social studies: A reader* (pp. 13-28). Singapore: Pearson Prentice-Hall.

Lang, H. R. & Evans, D. N. (2006). *Models, strategies and methods for effective teaching*. New York: Pearson.

Mackintosh, M. (1998). Photographs, diagrams and maps: Understanding and using them. In R. Carter (Ed.) *Handbook of primary geography* (pp. 133-152). London: The Geographical Association.

Ministry of Education (MOE, 2012). 2012 *syllabus social studies primary*. Singapore: Ministry of Education.

Parker, P. (2009). *Social studies in elementary education* (13th ed.). New Jersey: Prentice-Hall.

Smeaton, M. (1998). Questioning geography. In R. Carter (Ed.) *Handbook of primary geography* (pp. 15-18). London: The Geographical Association.

Stoltman, S. (Ed.) (1992). *Primary sources. Research findings in primary geography*. Sheffield: The Geographicalal Association.

Van Cleaf, D. W. (1991). *Action in elementary social studies*. New Jersey: Prentice-Hall.

Whittow, J. (1984). *Dictionary of physical geography*. London: The Penguin.

Wiegand, P. (1993). *Children and primary geography*. London: Cassell.