GAME-BASED PEDAGOGY

Traditional Games

Traditional children’s games of each region and community are shaped by local culture and the local environment. The physical space, materials available and seasons may determine where and when they are played, the props that are used and the form a game takes. Social and cultural norms, expressions and attitude may be reflected in who plays, the way the game is played or in the goals of the game. Traditional children’s games often incorporate cultural knowledge, values and skills that have emerged over time from the reciprocity between a particular society and its given environment.

Children’s games develop and evolve through improvisation and are transmitted through the process of mentoring by members of the community. Mentoring by elders and older peers is one of the means by which cultural knowledge, values and skills that are relevant to a particular society and its context, are transmitted to the younger generation. Cultural content is often embedded in the songs and chants, gestures and movements, roles assigned and goals of the game.

The form and content of children’s games, the process of play and the method of transmission are effectively an integrated and holistic form of education and socialization. The form and content of the game can be perceived as a locally improvised curriculum, the process of play as natural student-centered learning and the mentors in the community as local teachers.
Safeguarding Traditional Games and Cultural Knowledge

Sadly, the continuity of knowledge transmission has been broken by fragmented modernization processes. Some of the new introductions such as high-rise living, consumer goods and competitive education have led to reduced opportunities and demand for traditional game-playing. Traditional game-playing is losing out in the face of commercially-produced games and toys, electronic games, increased focus and time dedicated to formal education and schooling, reduced independence and mobility of children and space restrictions, etc.

Embedded in traditional children’s games are a rich repository of historical, environmental, social, scientific, mathematical, social, kinesthetic, visual and musical knowledge, values and skills, inherited over time and through experience. Rather than resigning ourselves to the widening gap between traditional and modern knowledge and learning, purposeful exchange between the two can lead to mutual gain. The ability of modern institutions of learning to document and communicate, to adopt and adapt, and to imbue traditional games with new life will go a long way in ensuring the continuity, evolution and application of cultural knowledge.

Diagram 1: Integrating Traditional and Modern Resources

Laboratory for Pedagogical Integration
There are many ways in which a school, teachers and technology can support and safeguard traditional games and its incumbent cultural knowledge:

- Start an on-line archive of traditional games
- Encourage teachers to incorporate the knowledge from games into classroom teaching and learning
- Encourage children to play traditional games during break and after school
- Provide a dedicated space (and props) for traditional game playing
- Organize traditional games festivals or competitions between classes
- Invite elders in the community to participate in teaching traditional games

**Game-Based Pedagogy**

Games-based pedagogy simply refers to the incorporation of games in both teaching and learning. There are many advantages for schools or teachers to adopt game-based pedagogy. The excitement of being able to “play” improves the class atmosphere for learning. Games are generally motivating because though “hard” they are definitely “fun”, and though “frustrating” they are definitely “pleasant”. Besides putting play back into the classroom, games help children experientially grasp skills and concepts relevant to their cognitive, affective and psychomotor development.

The table below illustrates how skills developed from playing traditional children’s games are compatible with skills targeted in subjects at the primary school level. For the purpose of easy comprehension, the table below categorizes game skills by cognitive, affective and psychomotor domains and matches them with subject area skills taught at the primary school level.
<table>
<thead>
<tr>
<th>SUBJECT AREAS (GRADE 1-6)</th>
<th>SKILLS THAT CAN BE MASTERED THROUGH GAME PLAYING</th>
<th>CULTURAL KNOWLEDGE &amp; VALUES THAT CAN BE TRANSMITTED THROUGH GAME PLAYING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COGNITIVE (Mental/Thinking)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Language</strong></td>
<td>Skills in speaking, writing and listening (descriptive and instructional).</td>
<td>Local dialect, vocabulary, songs, rhymes and nuances of language.</td>
</tr>
<tr>
<td><strong>Mathematics</strong></td>
<td>Skills in counting, sequencing, estimating, quantifying, matching, sorting, process thinking and discerning patterns and rhythms.</td>
<td>Local ways of understanding mathematical concepts and solving mathematical challenges.</td>
</tr>
<tr>
<td><strong>Science</strong></td>
<td>Inquiry, observation, classification, assessment skills (of props, players and environs). Skills in estimating levels, gradients, distances, location.</td>
<td>Knowledge of environment, materials and species. Local measurement and mapping systems and tools.</td>
</tr>
<tr>
<td><strong>Strategic Thinking</strong> (All subjects)</td>
<td>Skills in strategic thinking, decision making, problem solving, time management.</td>
<td>Cultural ways of thinking.</td>
</tr>
<tr>
<td><strong>AFFECTIVE (Emotional/Feeling for oneself and others)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Values &amp; Ethics</strong></td>
<td>Social interaction skills - collaborating, sharing, facilitation, mentoring, conflict management and group management.</td>
<td>Culturally appropriate social skills. Value-based actions and decisions that benefit the environment &amp; community.</td>
</tr>
<tr>
<td><strong>Social Studies / History</strong></td>
<td>Skills in discerning social roles, relationships, connectivity and networking systems. Understand concepts that shape history and society such as time and order of events, cause and effect, change, recording events and communication.</td>
<td>Social/historical roles and relationships. Cultural adaptability leading to change.</td>
</tr>
<tr>
<td><strong>PSYCHOMOTOR (Physical/Doing)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Art, Handicraft, Local Life Sciences</strong></td>
<td>Fine motor skills - grip, manipulation, tool management, hand preference. Sensory skills - touching, tasting, smelling, hearing and seeing.</td>
<td>Local craftsmanship and use of local materials. Local livelihood skills</td>
</tr>
<tr>
<td><strong>Physical &amp; Health Sciences</strong></td>
<td>Gross motor skills such as agility, flexibility, control, balance Understanding of the body.</td>
<td>Culturally appropriate or relevant physical skills and expressions.</td>
</tr>
</tbody>
</table>

*Diagram 2: Relationship Between Game-based Skills and Subjects Taught in Schools*
Schools or teachers interested in integrated curriculum models or sequential learning models should consider adopting games-based pedagogy in their lesson plans. Traditional game-playing is an excellent example of an integrated approach to learning where cognitive, affective and psychomotor learning is activated simultaneously. It is also a good model of the sequential approach to learning, where learning competency at higher levels is dependent on prerequisite knowledge and skills at lower levels.

**Game-Based Curriculum**

To help teachers take advantage of the rich repository of traditional children’s games in the region, a simple game-based curriculum has been developed for students of primary schools. The curriculum encourages the use of traditional games from the region as a teaching and learning resource.

For the convenience of subject teachers, the game-based curriculum is categorized by subject areas taught in school. The curriculum spells out how games can benefit the teaching of concepts and skills relevant to each subject area. A list of games relevant to the subject area is included together with pre-game and post-game activities which serve as warm-up and reflective tools respectively. Teachers may incorporate ideas from the game-based curriculum into formal classroom teaching or use it in co-curricular activity.

The curriculum areas include:

1. Subject Area: Language
2. Subject Area: Math
3. Subject Area: Science
4. Subject Area: Art / Handicrafts / Local Life Sciences
5. Subject Area: Physical Education and Health Science
6. Subject Area: Social Studies / History

"Documentation of Traditional Children's Games in South-East Asia"
Curriculum Area: Language

Introduction

Language is a very important medium of communication in children’s games. Players use language to describe or teach a new game to their peers, to discuss the rules of the game and to give instructions to each other during the game. Another use of language in children’s games is in the rhymes, songs or chants that are sung as part of a game. These can include humorous and entertaining nonsense rhymes.

Game playing requires players to also listen carefully and to be constantly attentive to verbal instructions or commands which are usually precise and succinct.

Objective

To use the verbal elements in games to reinforce or develop:

- new vocabulary
- communication/speaking skills
- recitation skills
- listening comprehension
- creative exposition
- use of second language

Recommended Games

Listed below are several children’s games that can be used to reinforce or develop language skills. The choice of game by the teacher should take into account the mental, emotional, physical and social maturity of the children as well as time, space and prop requirements. The teacher is advised to watch the CD before teaching the game.

Name of game | As documented in
--- | ---
Ngoo Kin Hang / Tail-Eating Snake | Bangkok
Chan-Angkarn / Monday-Tuesday | Northern Thailand
Lala / Odd Hands Out | Northern Thailand
O-wa Noi Ook / Odd Hands Out | Northern Thailand
Toh-Tum / Odd Hands Out | Luang Prabang
Teen Mai / Jumping the Bamboo | Penang
Lao Hu Sian Sheng Ji Dian Zhong / What is the Time, Mr. Tiger? | Phnom Penh
Tinh Ovleuk / Buying Watermelons | 

"Documentation of Traditional Children's Games in South-East Asia"
Additional Activities

Below are suggestions for pre- and post- activities that a teacher may use before and after playing any of the above mentioned games. These activities prepare students to understand and use language as a tool for communication and expression, to build their vocabulary and to enhance their listening skills.

Pre-game Activities

The pre-game activities familiarize children with some basic words, phrases and verses that they may need to use in playing games.

1. **Vocabulary Building:** The teacher selects a few key words used in the game to be played and encourages the children to find the meaning of words and synonyms for the words through discussion, in dictionaries or from online sources.

2. **Instructional Phrases:** The teacher selects a few generic instructional phrases related to the game to be played such as ‘turn around’, ‘it’s your turn now,’ ‘turn away’, ‘run towards’ or ‘run away from’, and asks the children to discuss and enact the actions.

3. **Understanding Rhymes:** The teacher explains what rhyme words are and asks children to share any nonsense rhymes they might have.

Post-game Activities

The post-game activities are follow-up activities played after a game to help expand children’s use of the language.

1. **Comprehension:** Ask children to discuss and write the rules or instructions on how to play the game in sequence. These rules or instructions can be incorporated as captions in a comic strip, video or photo-essay (produced by the children or teacher) illustrating the steps of the game.

2. **Vocabulary Building:** Children are challenged to keep a games vocabulary book and to collect as many new words (with definitions) used in each game played. Older children may categorize words collected as parts of speech, e.g. nouns, verbs, adjectives, etc.
How to prepare a lesson plan in “Language” class using a game from the CD

Sample Lesson Plan

<table>
<thead>
<tr>
<th>Title of Game</th>
<th>Main Subject Area</th>
<th>Specific Skills Developed</th>
<th>Pre-Game Activity</th>
<th>Post-Game Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>“What is the Time, Mr. Tiger?”</td>
<td>Language</td>
<td>-New vocabulary</td>
<td>Instructional Language Preparation: Call out simple phrases needed to play the game, e.g. ‘turn around’, ‘it’s your turn now,’ ‘turn away’, ‘tun towards’, ‘run away from’. The teacher demonstrates then asks children enact the actions.</td>
<td>Translation: Children translate the calls and responses in the game into their second language and play the game again.</td>
</tr>
</tbody>
</table>

Using the same game for enhancing skills in other subject areas

<table>
<thead>
<tr>
<th>Title of Game</th>
<th>Other Subject Area</th>
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</tr>
</thead>
<tbody>
<tr>
<td>“What is the Time, Mr. Tiger?”</td>
<td>Math</td>
<td>-Telling the time</td>
<td>Telling the Time: The teacher holds up flash cards with a picture of a clock showing the time. Children have to guess the time. The teacher gives out ‘blank’ clock faces and calls out the time; children draw the hands on the clock. Number Revision (for younger children): Ask children to sequence numbers 1-12 on given flashcards.</td>
<td>Counting Time: The teacher elicits from children how many hours in a day, minutes in an hour, and seconds in a minute. Revise the 12 hourly cycle and 24 hourly cycles with children. Play the game using the 24-hour time cycle, e.g. 1300 hrs.</td>
</tr>
<tr>
<td>“What is the Time, Mr. Tiger?”</td>
<td>Physical Education</td>
<td>-Speed, agility, alertness</td>
<td>Physical Preparedness: Running and stopping to the rhythm of an instrument. Variables in speed controlled by teacher.</td>
<td>Building Competence: Ask children to think of ways to make the game more difficult, e.g. increase the area to run in, children can only hop or skip, or make odd shapes with their body when they stop.</td>
</tr>
</tbody>
</table>
Cultural Challenge

Translation into second language: Create a class anthology of different rhymes and songs used in local games played by the children. In small groups, children can choose a rhyme or song, translate it into their second language and devise a creative choral presentation of the translated rhyme. Try playing the game again with the translated rhyme. Adapt the new words, tune or rhythm if necessary to fit with the game.
Teacher's Guide for Incorporating Traditional Children's Games in the Classroom

Curriculum Area: Math

Introduction

Games help children experience a range of mathematical concepts from basic concepts such as number recognition and counting to the more complex tasks of seeing relationships between things. In game playing children may have to select, sort, arrange and/or sequence objects or numbers. In many games, children have to compare levels, estimate distance, count a rhythm, calculate speed, tell the time, etc. Repeated game-playing sharpens children’s observation, calculation and estimation skills.

Objectives

To use game-playing to help children practice some basic maths concepts and skills:

- counting skills
- number sequencing skills
- telling the time
- problem solving
- estimating and evaluating
- quantifying
- comparing and contrasting
- concepts of shape and space
- data manipulation

Recommended games

Listed below are several children’s games that can be used to reinforce or develop math skills. The choice of game by the teacher should take into account the mental, emotional, physical and social maturity of the children as well as time, space and prop requirements. The teacher is advised to watch the CD first as well as read about how to play the game before teaching the game.
**Name of game** | **As documented in**
---|---
Len Saba / Tossing Saba Seeds | Bangkok
Chan-Angkarn / Monday-Tuesday | Northern Thailand
Dod Nang Wong / Jumping with Rubber-band Rope | Northern Thailand
Dod Nang Yang / Jumping with Rubber-band Rope | Northern Thailand
Lala / Odd Hands Out | Northern Thailand
Lookkaew / Marble Shooting | Northern Thailand
Nang Tong / Jumping with Rubber-band Rope | Northern Thailand
O-wa Noi Ook / Odd Hands Out | Northern Thailand
O-Chub / Hammer, Scissors and Paper | Northern Thailand
O-Siw / Jumping with Rubber-band Rope | Northern Thailand
Pao Nang Yang / Blowing Rubber Bands | Northern Thailand
Pao Nang Yang Tong 1 / Blowing Rubber Bands 1 | Northern Thailand
Pao Nang Yang Tong 2 / Blowing Rubber Bands 2 | Northern Thailand
Pao Ying Chub / Hammer, Scissors and Paper | Northern Thailand
Pao Nang Yang / Blowing Rubber Bands | Northern Thailand
Toh-Chub / Hammer, Scissors and Paper | Northern Thailand
Toh-Tum / Odd Hands Out | Northern Thailand
Pov Pa / Picking Up Sticks | Luang Prabang
Omega | Penang
Punctuation | Penang
Tudung Tin / Bottle Caps | Penang
Zero Point | Penang
Chravak / Chain | Phnom Penh
Bei Daok Mouy / Three Minus One | Phnom Penh
Lot Kaosou / Jumping with Rubber-band Rope | Phnom Penh

**Additional activities**

Listed below are suggestions for pre- and post- activities that a teacher may use before and after playing any of the above-mentioned games. These activities prepare students to practice their mathematical skills and indirectly internalise maths concepts that are embedded in the games.

**Pre-game activities**

The pre-game activities familiarise children with some basic maths concepts and skills that help children increase their awareness of the relationship between things.

1. **Counting**: Each child says their name followed by the class clapping a rhythm that matches the syllables in the name. For example the name Vin-Sen has two claps while the name Shar-mi-la has three claps. Children can be asked to group themselves with classmates who have names with a similar number of beats.
2. **Measurement/Quantifying**: Ask children to ‘guess’ the length/height of classroom objects. Elicit answers and ask the class assistant to write it into a table on the board. In pairs, children measure the objects and see if their guesses are correct.

3. **Concepts of Shape and Space**: Teacher asks children to form shapes, individually using their first their fingers, then hands, arms and legs or in small groups using their whole bodies. Divide children into teams before playing the game. Give the teams shape names, for example, ‘The Terrific Triangles’, ‘The Powerful Pyramids’ and ‘The Super Squares’. Children develop a cheer dance based on the shapes in preparation for their team winning the game.

**Post-game activities**

The post-game activities are follow-up activities played after a game to help children experience how a basic math concept can be developed into a more complex and bigger picture.

1. **Problem Solving**: Keep a table showing points accumulated by individuals/teams and points deducted for breaking rules. After the game, add up the scores of individual players or of each team. Which individual/team scored the most points? The least points?

2. **Comparisons**: Children measure the height jumped, distance run, distance a ball is thrown, the number of targets hit, etc. They record their results which are then collated by the teacher and put into a table. Older children can be taught to produce a graph to compare and contrast their achievement with that of others.

**How to prepare a lesson plan in “math” class using a game from the CD**

<table>
<thead>
<tr>
<th>Sample Lesson Plan</th>
<th>Sample Game: “Tress / Picking Up Sticks” (Phnom Penh, Cambodia)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Title of Game</th>
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<th>Specific Skills Developed</th>
<th>Pre-Game Activity</th>
<th>Post-Game Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Tress / Picking Up Sticks”</td>
<td>Math</td>
<td>-Counting - Developing concepts of shape</td>
<td><strong>Shape Building:</strong> Teacher hands each group 10 sticks and asks them to make shapes, e.g. ‘make a triangle’, ‘make a square’, ‘make a house’, etc.</td>
<td><strong>Problem Solving:</strong> Teacher dictates math problems to the children, e.g. Child A had 20 sticks. She took away 8, then gave away 6 more. How many does she have left? Children then pick the number of sticks that represent the answer.</td>
</tr>
</tbody>
</table>
Using the same game for enhancing skills in other subject areas

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>“Tress / Picking Up Sticks”</td>
<td>Science</td>
<td>-Classification -Calculating space/time relationships</td>
<td>Classifying Shapes: Provide children with many different shaped objects in the form of 2D pictures and 3D objects. Ask children to classify the shapes according to criteria.</td>
<td>Calculating Speed: Ask children to time their team members on tasks completed in “Tress”. They can calculate speed according to number of sticks picked up per second or how fast a shape is built.</td>
</tr>
<tr>
<td>“Tress / Picking Up Sticks”</td>
<td>Art, Handicraft &amp; Local Life Sciences</td>
<td>-Fine motor skills -Using tools -Textures</td>
<td>Familiarisation with Prop Sticks and Stone: Ask children to pick up all the 10 sticks using only 2 sticks as tools. Children can also try to throw a stone in the air and quickly pick up one stick before the stone is caught with the same hand.</td>
<td>‘New Rule’ Sensory Challenge: Children try throwing the stone in the air and catching it while wearing a blindfold. Next see if they can pick up any sticks before catching the stone.</td>
</tr>
</tbody>
</table>

Cultural challenge

Traditional Measurement Methods: Children interview elders to find out traditional techniques of measuring lengths and distances, heights and gradients and the traditional names given to these measurements. Encourage children to use the measurement system in their games.
Curriculum Area: Science

Introduction

Games can be used to reinforce concepts in science as well as develop science process skills, manipulative skills and skills in thinking. In games, players use science by making predictions from observing and deducing. From repeated playing they are able to infer, assess problems, experiment and come up with tactical problem solving. Games are a springboard for discussion of scientific concepts and can lead to activities which further develop players’ understanding of the concepts explored during play. In particular, traditional children’s games can introduce children to indigenous concepts of science that are embodied in the games, associated props, songs, location where game is played, etc.

Objectives

To use the scientific concepts and/or skills in games to reinforce or develop

- classification skills
- ability to understand space/time relationships
- inferring skills
- predictive/hypothesizing skills and experimentation
- observation, recording of information and measurement

Recommended games

Listed below are several children’s games that can be used to reinforce or develop skills in science. The choice of game by the teacher should take into account the maturity and skill level of the children, time, and space and prop requirements. The teacher is advised to watch the CD first as well as read about how to play the game before teaching the game.

<table>
<thead>
<tr>
<th>Name of game</th>
<th>As documented in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ka Fug Khai / Crow Takes Care of Its Eggs</td>
<td>Bangkok</td>
</tr>
<tr>
<td>Len Saba / Tossing Saba Seeds</td>
<td>Bangkok</td>
</tr>
<tr>
<td>Mon Son Pa / Mon Hides a Cloth</td>
<td>Bangkok</td>
</tr>
<tr>
<td>Chan-Angkarn / Monday-Tuesday</td>
<td>Northern Thailand</td>
</tr>
<tr>
<td>Dod Nang Wong / Jumping with Rubber-band Rope</td>
<td>Northern Thailand</td>
</tr>
<tr>
<td>Dod Nang Yang / Jumping with Rubber-band Rope</td>
<td>Northern Thailand</td>
</tr>
<tr>
<td>E-Sok / Scooping Tamarind Seeds</td>
<td>Northern Thailand</td>
</tr>
</tbody>
</table>

“Documentation of Traditional Children’s Games in South-East Asia”
Additional activities

Teachers may use pre- and post-activities before and after playing the games. These activities prepare students to understand and use scientific language and concepts and reinforce the new terms and concepts. Listed below are suggestions for pre- and post-game activities to aid the teacher in planning.

Pre-game activities

The pre-game activities familiarize children with some basic scientific concepts, skills and vocabulary that they may need to use in playing games.
1. **Sorting Skills:** Invite children to group themselves into groups of approximately ten persons. The teacher then gives an instruction and the ten persons in the group have to organise themselves to complete each task by the count of ten. Sorting instructions can include ‘form a line from shortest to tallest’, ‘form a line from youngest to oldest’, ‘form a line from longest hair to shortest hair’, etc. The teacher checks each competing group for the most accurately performed task.

2. **Science Vocabulary Building:** The teacher puts children in groups and asks them to brainstorm new science words learned from classroom lessons or from books or television. Children write the words on strips of paper which are folded and put into a box. Children write the titles of four different games on the board. Each group randomly picks 2-3 folded papers from the box and discusses which science words are related to which games. They then match their science words to the game and explain their rationale to the class.

3. **Classification Skills:** The teacher asks children to form groups and to collect objects from within/outside the classroom. They then select and classify the objects collected using any suitable classification category, e.g. material, shape, length, size. The groups are then asked to discuss which of the items collected may serve as possible props for the games they usually play.

**Post-game activities**

The post-game activities are follow-up activities played after a game to help expand children’s development of science concepts, skills and language.

1. **Predicting/Hypothesizing:** Ask children to discuss the different props used in different games and the function of their physical properties. Ask children to discuss what may happen if the game is played differently, for example, with a heavier or lighter prop. Ask them to write down their predictions, devise an experiment to test their hypothesis and record their results. Were their predictions correct?

2. **Observation, Recording of Results and Measurement:** In small groups, children appoint a ‘record keeper’. The group plays the game and the results are recorded and graphed.

3. **Space/Time Relationship:** Children time each other playing a game then calculate speed by measuring distance. Children can graph results. Children may then discuss possible conditions that may be conducive to increasing the speed of the game, e.g. by changing props or by playing on a different surface or by increasing the number of players. They then apply their ideas and graph and compare the results between different applications.
How to prepare a lesson plan for “science” class using a game from the CD

Sample Lesson Plan

Sample Game: “Pulling Palm Fronds” (Penang, Malaysia)

<table>
<thead>
<tr>
<th>Title of Game</th>
<th>Main Subject Area</th>
<th>Specific Skills Developed</th>
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<th>Post -Game Activity</th>
</tr>
</thead>
</table>
| “Pulling Palm Fronds” | Science            | -Predicting/ Hypothesizing - Using space/time relationship | **Science Vocabulary Building:**
Children label diagram of game showing forces involved (e.g. pulling)        | Predicting/Hypothesizing:
Ask children to predict what will happen if two or more children ride on the frond’s sheath. (Possible answers: players will slow down; the frond may break, etc.) Children experiment and record results. |

Using the same game for enhancing skills in other subject areas

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</table>
| “Pulling Palm Fronds” | Physical Education | -Strength and speed       | **Physical preparedness:**
In pairs children join hands and try to pull each other towards themselves.     | **Increase Challenge:**
Elicit from children ways to make game more challenging, e.g. pull two riders on the frond, increase race distance. |
| “Pulling Palm Fronds” | Values & Ethics    | -Social interaction       | **Helping To Prepare Props:**
Elicit from children the qualities needed for the prop, i.e. the frond should be dry, strong and wide. Ask children to help each other select the fronds | **Mentoring:**
Children teach the game to other class and pair up for an inter-class challenge. |

Cultural challenge

**Concept Building** (for older children): The teacher elicits from children examples of scientific concepts in everyday life (that she/he has taught). This may include indigenous scientific concepts or knowledge about the environment or the universe. The teacher can play the DVD or give children photographs of children playing traditional games and asks children to identify what concepts are involved in the different traditional games, for example, type of energy, and effects of force and movement.
Introduction

Some games can be used to develop children’s fine motor skills that involve the finger, wrist or hand manipulation or manipulation of feet and toes. Games can also help children discern their hand preference. Some games require children to use their sensory skills such as touch, taste, smell, sight and hearing. Fine motor and sensory skills are often called upon when preparing a prop for the game, for instance, in selecting local materials and crafting the prop.

Development of the fine motor skills and use of the senses are important as they contribute to life skills development that are required in the domestic and vocational aspects of living such as cooking, farming, mechanical work, weaving, etc.

Objectives

To use game-playing to develop fine motor skills such as:

- grip
- manipulation
- tool/prop management

To use games to discern details related to:

- visual appearance
- sound
- texture
- taste
- smell

Recommended games

Listed below are several children’s games that help to develop children’s fine motor and sensory skills. The choice of game by the teacher should take into account the mental, emotional, physical and social maturity of the children as well as time, space and prop requirements. The teacher is advised to watch the CD first, as well as read about how to play the game before teaching the game.
**Name of game** | **As documented in**
---|---
Len Saba / Tossing Saba Seeds | Bangkok
Lor Kon Krok / Rolling a Mortar Bottom | Bangkok
Ba Kang Wo / Spinning Top | Northern Thailand
Chan-Angkarn / Monday-Tuesday | Northern Thailand
Copter Mai Pai / Bamboo Helicopter | Northern Thailand
Dod Nang Wong / Jumping with Rubber-band Rope | Northern Thailand
Dod Nang Yang / Jumping with Rubber-band Rope | Northern Thailand
E-Sok / Scooping Tamarind Seeds | Northern Thailand
Kam Moon / Grab-and-Spinner | Northern Thailand
Lookkaew / Marble Shooting | Northern Thailand
Maak Kaew / Marble Shooting | Northern Thailand
Moon Yang Rod / Spinning Motorbike Tires | Northern Thailand
Rod Yang / Rolling Motorbike Tires | Northern Thailand
Tao Kala / Coconut-shell Turtle | Northern Thailand
Cari Cucu / Search for Grandchild or Grandmother | Penang
Hamburger | Penang
Mulut Itik / Duck's Beak | Penang
Omega | Penang
She Ye Zi / Leaf Shooting | Penang
Tudung tin / Bottle Caps | Penang
Zero Point | Penang
Banh Kli / Marble Shooting | Phnom Penh
Chak Loklak / Finger Grabing | Phnom Penh
Chravak / Chain | Phnom Penh
Heung / Stick Hitting | Phnom Penh
Khleang Chab Koun Moan / Eagle Catches Baby | Phnom Penh
Kup Sey / Shuttlecock Throwing | Phnom Penh
Lot Kaosou / Jumping with Rubber-band Rope | Phnom Penh
Phka Champa Phka Champei / Champa Champei | Phnom Penh

**Additional activities**

Below are suggestions for pre- and post-activities that a teacher may use before and after playing any of the above mentioned games. These activities provide a platform for children to experience and practice using their limbs to carry out fine motor tasks and to expand and sharpen their senses.

**Pre-game activities**

The pre-game activities familiarise children with some basic fine motor and sensory skills.

1. **Manipulation Skills:** The teacher gives children small objects (bean bag, pebble, feather, etc.) and gives them instructions. For example, pick the object up off the ground, toss it and catch it with the same hand, toss it to the person on their right, etc. Repeat exercise first with hands, then with elbows, then with feet, etc.
2. **Using Tools:** The teacher can play the CD of any of the games to the class. Children observe props used in games. Children go out to select materials and to create the props with the help of the teacher. The teacher can also ask children to create a set of ‘fancy’ score-cards.

3. **Auditory Skills:** The teacher can ask children to close their eyes and listen carefully to the chants used in any of the games. Children write out the words using phonetics even if they do not understand the meaning. Teacher then explains the meaning to them.

4. **Feel/Taste Skills:** Children play in pairs and alternate turns. One child sits in chair and closes his/her eyes. The standing partner presses a tiny object into the open palm of the sitting child then removes it. The sitting partner has to guess what the object is. Repeat with different objects. Alternatively, the standing partner puts a tiny drop of liquid on tongue of sitting partner e.g. salt, sugar or lime juice. The sitting partner has to guess what the food is.

**Post-game activities**

The post-game activities are follow-up activities played after a game to help children further develop their fine motor or sensory skills.

1. **Manipulation skills:** Children work in groups and re-create a game scene (diorama) in clay or dough (by sculpting the players and the props). The scene can be labeled with the names for props and actions.

2. **Auditory skills:** Children work in small groups. The teacher asks the groups to create the sound track for any game using their voice as well as using found objects in the classroom as instruments to reproduce ‘sound bites’ from the game without showing the actual game. Groups then listen to each other and try to guess the game from the soundtrack.

3. **Fine motor skills:** The teacher can ask the children to draw a comic strip depicting the sequence of the game as played. Alternatively children can paint one detailed scene of themselves playing the game.

**How to prepare a lesson plan for “Art, Handicraft & Local Life Sciences” class using a game from the CD**

<table>
<thead>
<tr>
<th>Sample Lesson Plan</th>
<th>Sample Game: “Koom Kook Koom Kuee” (Luang Prabang, Lao PDR)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title of Game</strong></td>
<td>“Koom Kook Koom Kuee”</td>
</tr>
<tr>
<td><strong>Main Subject Area</strong></td>
<td>Art, handicraft &amp; local life sciences</td>
</tr>
<tr>
<td><strong>Specific Skills Developed</strong></td>
<td>-Sensory skills -Motor skills</td>
</tr>
<tr>
<td><strong>Pre-Game Activity</strong></td>
<td><strong>Observation of Facial Expressions:</strong> Make facial expressions and guess what they mean. <strong>Feel:</strong> Children walk up to the teacher and close their eyes. The teacher presses a tiny</td>
</tr>
<tr>
<td><strong>Post Game Activity</strong></td>
<td><strong>Drawing Detail:</strong> Give children some drawings/cartoons with facial expressions and ask children to label the expressions. Ask children to draw picture or cartoon of themselves playing the game. They should</td>
</tr>
</tbody>
</table>
object into their open palm then removes it. The children have to guess what the object is. Repeat with different objects.

Using the same game for enhancing skills in other subject areas

<table>
<thead>
<tr>
<th>Title of Game</th>
<th>Other Subject Area</th>
<th>Specific Skills Developed</th>
<th>Pre-Game Activity</th>
<th>Post -Game Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Koom Kook Koom Kuee”</td>
<td>Values &amp; Ethics</td>
<td>- Sharing - Collaborating</td>
<td>Mentoring: Teach the game to one or two children, then ask them to teach it to a small group. Monitor the groups to make sure they understand the rules, etc.</td>
<td>Mentoring: Separate children into pairs and ask them to create a new rule. Children then re-join the group and each explains their new rule. The group decides which new rule to use in the game and play again.</td>
</tr>
<tr>
<td>“Koom Kook Koom Kuee”</td>
<td>Language</td>
<td>- Creative exposition</td>
<td>Teach children the original chant for game while clapping the rhythm. Elicit possible meanings of chant, then present meanings.</td>
<td>Children can think of their own words to chant during the game. The words can have a meaning related to original chant or just be nonsense words. Each group can think of one line and they can be joined together. Begin with “Koom Kook Koom Kuee”.</td>
</tr>
</tbody>
</table>

Cultural Challenge

**Learning a Traditional Craft:** Children interview elders in the community on traditional games that require them to create a prop from local materials, for example, weaving from palm fronds, carving from wood, sewing a bean bag from seeds, etc. An elder/parent can be identified by the teacher or students to teach the making of the prop and the game to the children.
Curriculum Area: Physical Education and Health Science

Introduction

Games can play an obvious role in physical education where they can be used to develop a number of skills. In many games, players can develop strength, flexibility, endurance, speed and motor skills such as balance, coordination and agility. Additionally, by developing these skills through a relaxed atmosphere of game playing, players can build their physical confidence.

Objectives

To use games to reinforce or develop physical skills and build competence such as:

- running, jumping and throwing
- using a variety of equipment
- strength, speed and endurance
- agility, alertness and flexibility
- control, balance and co-ordination
- skills needed to live and move with confidence in the environment

Recommended games

Listed below are several children’s games that can be used to reinforce or develop physical skills. The choice of game by the teacher should take into account the maturity and skill level of the children, time, and space and prop requirements. The teacher is advised to watch the CD first as well as read about how to play the game before teaching the game.

<table>
<thead>
<tr>
<th>Name of game</th>
<th>As documented in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dern Ka La / Coconut-shell Shoes</td>
<td>Bangkok</td>
</tr>
<tr>
<td>Ka Fug Khai / Crow Takes Care of Its Eggs</td>
<td>Bangkok</td>
</tr>
<tr>
<td>Len Saba / Tossing Saba Seeds</td>
<td>Bangkok</td>
</tr>
<tr>
<td>Lor Kon Krok / Rolling a Mortar Bottom</td>
<td>Bangkok</td>
</tr>
<tr>
<td>Ma Karn Kluay / Banana-stalk Horse</td>
<td>Bangkok</td>
</tr>
<tr>
<td>Mon Son Pa / Mon Hides a Cloth</td>
<td>Bangkok</td>
</tr>
<tr>
<td>Ngoo Kin Hang / Tail-Eating Snake</td>
<td>Bangkok</td>
</tr>
</tbody>
</table>

“Documentation of Traditional Children’s Games in South-East Asia”
<table>
<thead>
<tr>
<th>Activity</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ree Ree Khao Sarn / To be Trapped Between the Arches</td>
<td>Bangkok</td>
</tr>
<tr>
<td>Dod Nang Yang / Jumping with Rubber-band Rope</td>
<td>Northern Thailand</td>
</tr>
<tr>
<td>Dod Nang Wong / Jumping with Rubber-band Rope</td>
<td>Northern Thailand</td>
</tr>
<tr>
<td>Dod Yang Rod / Jumping on Motorbike Tires</td>
<td>Northern Thailand</td>
</tr>
<tr>
<td>Kradod Chuek / Jumping with Rope</td>
<td>Northern Thailand</td>
</tr>
<tr>
<td>Kratai Ka Kuab / Hopping Rabbit</td>
<td>Northern Thailand</td>
</tr>
<tr>
<td>Moon Yang Rod / Spinning Motorbike Tires</td>
<td>Northern Thailand</td>
</tr>
<tr>
<td>Nang Tong / Jumping with Rubber-band Rope</td>
<td>Northern Thailand</td>
</tr>
<tr>
<td>O-Siw / Jumping with Rubber-band Rope</td>
<td>Northern Thailand</td>
</tr>
<tr>
<td>Rod Yang / Rolling Motorbike Tires</td>
<td>Northern Thailand</td>
</tr>
<tr>
<td>Toey / Passing the Zones</td>
<td>Northern Thailand</td>
</tr>
<tr>
<td>Yon Yang Rod / Throwing Motorbike Tires</td>
<td>Northern Thailand</td>
</tr>
<tr>
<td>Chaij Nees / Horseback Riding</td>
<td>Luang Prabang</td>
</tr>
<tr>
<td>Koom Kook Koom Kuee / Guessing Who Holds the Rock</td>
<td>Luang Prabang</td>
</tr>
<tr>
<td>Lou Li Khaosan / Lou Li Rice Grain</td>
<td>Luang Prabang</td>
</tr>
<tr>
<td>Makyang / Jumping on One Leg</td>
<td>Luang Prabang</td>
</tr>
<tr>
<td>Pin Maw Khang / Spin the Pan</td>
<td>Luang Prabang</td>
</tr>
<tr>
<td>Seua Lai Mou / The Tiger Must Catch the Pig</td>
<td>Luang Prabang</td>
</tr>
<tr>
<td>Seuangmohn / Hide the Eraser</td>
<td>Luang Prabang</td>
</tr>
<tr>
<td>Teen Mai / Jumping the Bamboo</td>
<td>Luang Prabang</td>
</tr>
<tr>
<td>Ua Bay Loog / Passing the Zones</td>
<td>Luang Prabang</td>
</tr>
<tr>
<td>Bola Beracun / Poison Ball</td>
<td>Penang</td>
</tr>
<tr>
<td>Cari Cucu / Search for Grandchild or Grandmother</td>
<td>Penang</td>
</tr>
<tr>
<td>Icewater / Iceman</td>
<td>Penang</td>
</tr>
<tr>
<td>Kabaddi</td>
<td>Penang</td>
</tr>
<tr>
<td>Konda-Kondi</td>
<td>Penang</td>
</tr>
<tr>
<td>Lao Hu Sian Sheng Ji Dian Zhong / What is the Time, Mr. Tiger?</td>
<td>Penang</td>
</tr>
<tr>
<td>Lian Hua Ji Shi Kai Hua / Lotus Flower, When Will You Bloom?</td>
<td>Penang</td>
</tr>
<tr>
<td>Pepsi Cola</td>
<td>Penang</td>
</tr>
<tr>
<td>Tarik Upeh / Pulling Palm Fronds</td>
<td>Penang</td>
</tr>
<tr>
<td>Tu / Tag</td>
<td>Penang</td>
</tr>
<tr>
<td>Tuju Tin / Aiming at Tins</td>
<td>Penang</td>
</tr>
<tr>
<td>Zero Point</td>
<td>Penang</td>
</tr>
<tr>
<td>Bei Daok Mouy / Three Minus One</td>
<td>Phnom Penh</td>
</tr>
<tr>
<td>Chak Cheung Muoy / Jumping on One Leg</td>
<td>Phnom Penh</td>
</tr>
<tr>
<td>Chak Loklak / Finger Grabbing</td>
<td>Phnom Penh</td>
</tr>
<tr>
<td>Chhma Denh [or] Chap Kandol / Cat Chasing the Mouse</td>
<td>Phnom Penh</td>
</tr>
<tr>
<td>Dandeum Sleuk Chheu / Stealing the Leaves</td>
<td>Phnom Penh</td>
</tr>
<tr>
<td>Heung / Stick Hitting</td>
<td>Phnom Penh</td>
</tr>
</tbody>
</table>
Khleang Chab Koun Moan / Eagle Catches Baby Chickens
Kup Sey / Shuttlecock Throwing
Lot Kaosou / Jumping with Rubber-band Rope
Ou / Humming
Phka Champa Phka Champei / Champa Champei
Polis Chab Chaor / Cops and Robbers
Sva Dandeum Ti / Monkey Steals the Seat
Tinh Ovleuk / Buying Watermelons

Additional activities

Teachers may use pre- and post-activities before and after playing the games. These activities prepare students to understand and use game-related terms and skills, warm-up children’s muscles for the activity, and reinforce the new terms and skills. Listed below are suggestions for pre- and post-game activities to aid the teacher in planning.

Pre-game activities

The pre-game activities familiarize children with some basic skills and movement vocabulary that they may need to use in playing games.

1. **Skills Building**: Children do simple warm-up activities suited to the game such as stretching, running on the spot, hopping, etc. The teacher can put children in groups of small circles and have them toss a soft toy or bean bag to each other or at a target, increasing the distance or doing it while moving.

2. **Competence in Control, Balance and Co-ordination**: The teacher can put children in pairs and give them tasks of travelling from one point to a finishing line by carrying their friend, pushing/pulling their friend, running back-to-back with their friend, etc. Once they have achieved explored the possibilities, they may compete on each task with other pairs.

Post-game activities

The post-game activities are follow-up activities played after a game to help build competence in physical skills.

1. **Building Competence**: Set children some goals for improving strength, speed, endurance and flexibility by having them keep a personal record of their achievements, e.g. how fast they were in a race or the number of targets they hit.
2. Make the games increasingly difficult by changing the prop, increasing the distance to throw or run or by having two ‘catchers’.

How to prepare a lesson plan in “Physical Education” class using a game from the CD

Sample Lesson Plan     Sample game: “Chaij Nees / Horseback Riding” (Luang Prabang, Lao PDR)

<table>
<thead>
<tr>
<th>Title of Game</th>
<th>Main Subject Area</th>
<th>Specific Skills Developed</th>
<th>Pre-Game Activity</th>
<th>Post -Game Activity</th>
</tr>
</thead>
</table>
| “Chaij Nees / Horseback Riding” | Physical Education        | -Speed, balance, coordination and alertness | **Warm Up:**  
- In circles, children throw a small toy or cushion to each other.  
- Children run from one side of the playground to the other, but must change direction when whistle is blown.  
- In pairs, children practice carrying each other while throwing the toy. | **Increasing Difficulty:**  
- Decrease the area which horses and riders are allowed to roam.  
- Tell horses and riders they can only hop or jump (not run).  
- Use a smaller cushion or toy. |

Using the same game for enhancing skills in other subject areas

<table>
<thead>
<tr>
<th>Title of Game</th>
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<th>Specific Skills Developed</th>
<th>Pre-Game Activity</th>
<th>Post -Game Activity</th>
</tr>
</thead>
</table>
| “Chaij Nees / Horseback Riding” | Values & Ethics            | - Collaboration  
- Teamwork  
- Problem solving  
- Conflict handling   | **Teamwork Ice-breaker**  
Divide children into horses and riders. Children make their own team name and arm band/labels to identify themselves. They set some ground rules for their team. | **Sharing Experiences**  
In teams, children talk about what happened in the game: Did they stick to their ground rules? Did they play fair? How can they improve fair play? Both teams discuss problems and how to resolve them before playing again. |
| “Chaij Nees / Horseback Riding” | Strategic Thinking         | -Strategic thinking in team context | **Strategic Game Planning**  
Divide children into 2 teams. Ask riders to talk about strategy to outwit horses. Do the same | **Post-Strategy Discussion**  
Ask children to discuss in their teams whether their strategy worked and why/why not? Ask |
for the horses. 

them to think of ways to improve their game playing. Play again with new ideas.

*Cultural challenge*

*Cultural Sharing:* Ask children to invite children from other ethnic groups to a “Learn a game with us day.” This can be continuous or even in the form of a onetime exchange. Set up a traditional mini-Olympics including games from various ethnic groups. Children can make their own medals. Children can publish a traditional games newsletter, complete with photos of children enjoying the activities.
Curriculum Area: History and Social Studies

Introduction

Games have proven to play an important role in contributing to the cultural identity and social development of children over the ages. Games also provide opportunities for children to learn social roles as defined by culture as well as comprehending local social systems indirectly. Games can therefore provide teachers with an informal way of teaching social studies and history.

However, society and identity are constantly changing and these changes are often shaped and defined by historical events. Games can help children understand the basic concepts involved in history such as time and order of events, cause and effect, change, recording events and communication.

Objectives

To reinforce or develop skills related to social studies such as:

- discerning social roles
- relationships
- connectivity and networking systems

To reinforce or develop skills related to historical understanding such as:

- recording events
- putting events in chronological order
- identifying the relationship between cause and effect
- identifying how something has changed or remained the same
- communicating an event

Recommended games

Listed below are several children’s games that can be used. The choice of game by the teacher should take into account the maturity and skill level of the children, time, space and resources required. Teachers are advised to watch the CD first before teaching the game.
**Name of game**

<table>
<thead>
<tr>
<th>Game Description</th>
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<tbody>
<tr>
<td>Len Saba / Tossing Saba Seeds</td>
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<tr>
<td>PenhPongrot Koun Kramom / Stealing the Bride</td>
<td>Phnom Penh</td>
</tr>
<tr>
<td>Tinh Ovleuk / Buying Watermelons</td>
<td></td>
</tr>
</tbody>
</table>

**Additional activities**

Teachers may use pre- and post-activities before and after playing the games. These activities prepare students to understand and use historical language and concepts, to practice social skills as well as to familiarize them with social roles and responsibilities. Listed below are suggestions for pre- and post-game activities to aid the teacher in planning.

**Pre-game activities**

The pre-game activities familiarize children with some basic historical concepts, skills and vocabulary that they may need to use in playing games.

1. **Sequencing:** The teacher gives children pictures of other children playing a game. Children have to put the pictures into time order. Children can label the pictures ‘before’, ‘after’, ‘first’, ‘then’, ‘next’, etc.

2. **Recognizing Change:** Invite a grandparent or elder community member to the class to talk about a game they played. Have children prepare questions to ask the guest questions: Who taught you to play this game? Do you still play this game?

3. **Communicating an Event:** Explain to children that in history it is important to listen very carefully if you want to record and remember what people are saying. Put children into equal lines of about 8 or 10 facing the front of the classroom, an arm’s distance apart. Whisper a one-line summary of the game to the first child. The first child whispers the message to the second, who whispers it to the third, etc. down the line. The last child runs to the front and says the message out loud. Is it same as the original message?

4. **Discerning Social Roles:** Elicit from children who the ‘strong and ‘weak’ (or ‘good’ vs ‘bad’, etc) characters are in the game and ask them why they think so. Ask them if they can think of other similar characters in stories or other games they have played.
Post-game activities

The post-game activities are follow-up activities played after a game to help expand children’s development of historical concepts and social relationships.

1. **Recording Events:** Ask children to draw a sequence of events when they played the game. Children can label/caption the pictures, using words such as ‘first’, ‘next’, ‘then’. Children can tell the story of “The Day We Played a New Game”.

2. **What If...?:** To reinforce the concepts or cause and effect, ask children to pretend they no longer have a playground or a ball, for example, to play the game. How can they change the game so that they can still play it or a similar version of it?

3. **Identifying Change:** Ask children to imagine it is the year 2050. What kind of games will be played? Can they invent a new game for the future? Encourage children to be as creative as possible. Children can draw or write a story about their new game. Teachers can set parameters, for example, “A Game in Space”, “A Game with My Robot”, etc. Children can present their game and answer questions from their classmates about it.

4. **Relationships:** Ask children to think about the relationships in the game: are they like that in ‘real life’? Ask them to discuss relationships and emotions arising from playing games with their peers.

How to prepare a lesson plan for “Social Studies” class using a game from the CD

**Sample Lesson Plan**

<table>
<thead>
<tr>
<th>Title of Game</th>
<th>Main Subject Area</th>
<th>Specific Skills Developed</th>
<th>Pre-Game Activity</th>
<th>Post-Game Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Tail Eating Snake”</td>
<td>Social studies</td>
<td>-Discerning social roles, relationships</td>
<td><strong>Identifying Social Roles In the Game:</strong> Elicit from children the roles of each character in the game, i.e. mother, father, children. Ask them what the characters are doing, e.g. mother is protecting the child.</td>
<td><strong>Identifying Roles in Other Stories:</strong> Ask children to think about the roles of mothers and fathers in other games and stories from their culture and other cultures. Children can draw a chart with traits of the characters to see if there are similarities/differences.</td>
</tr>
</tbody>
</table>

Using the same game for enhancing skills in other subject areas
<table>
<thead>
<tr>
<th>Title of Game</th>
<th>Other Subject Area</th>
<th>Specific Skills Developed</th>
<th>Pre-Game Activity</th>
<th>Post-Game Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Tail-Eating Snake”</td>
<td>Language</td>
<td>-Question and answer</td>
<td>Clapping a Rhythm: The teacher writes the chant from the game on the board. She</td>
<td>Translation: Children translate the calls and responses in the chant into their second language and play the game again.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Call and response</td>
<td>chants aloud while clapping a beat. The class recites the chant, first copying the beat only, and then adding in the words.</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>-Listening</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Rhythm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Tail-Eating Snake”</td>
<td>Science</td>
<td>-Predicting</td>
<td>Discussion About the Food Chain: Who eats what? What do snakes eat?</td>
<td>Guessing Facts About Snakes: True or False? The teacher reads out some sentences and children guess if they are true or false. They then research the answers to see if their guesses are correct, e.g. ‘Snakes eat their babies’, ‘Snakes lay eggs’, ‘Snakes can climb trees’.</td>
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</tbody>
</table>

**Cultural Challenge**

**Understanding Change:** The teacher elicits from children games that they play today that their parents did not play when they were little, for example, computer games. Ask children why games have changed. Children can search the internet or bring books and pictures of traditional games played in their country, make a list of the games and write where they are played, for example indoors/outdoors, or what materials are used, for example, ball made of rubber or goat skin. The teacher can try to elicit why games are played in certain places or particular materials are used. The teacher can bring in a picture of an unusual game prop and see if children can guess how to play the game, etc.
APPENDIX

Contribution of Game Playing to Child Development

THE COGNITIVE (THINKING) DOMAIN

Playing games involves information processing, deductive reasoning, analysis and problem solving and conceptual thinking.

Skills in the cognitive domain involve developing the ability to contextualize knowledge, i.e. the ability to comprehend, analyze and synthesize. Thinking conceptually in terms of patterns and sequence is also required.

Strategic Thinking & Problem-Solving

- Games are problem solving. Players (learners) tend to explore more thoroughly before going on to the next step or playing their next turn.
- Games require strategic thinking, encouraging learners to think laterally as well as to figure out the linear sequence of activities.
- Games have built-in formative assessment, i.e. games provide rapid feedback that helps learners actually see how they can improve and what they must do (then and there) to improve.

Numeracy skills

- Many games reinforce counting skills.
- Players are able to experience math concepts when estimating distances or quantities, classifying and sorting.
- Giving numerical value to levels of accomplishments also reinforces estimation and quantifying skills.
- Rhythmic chants and rhymes coupled with complex rhythmic action reinforce numeric thinking.

Language skills

"Documentation of Traditional Children's Games in South-East Asia"
• Players practice speaking and listening skills by explaining and grasping the rules of the game.

• Players’ expressive skills expand when instructing and communicating, singing or chanting.

THE AFFECTIVE (EMOTIONAL) DOMAIN

Playing games involves emotional, attitudinal and values development. It sparks motivation, enthusiasm and also emotional reaction to situations.

Skills in this area include developing self-control, interaction skills, self-awareness and building up one’s own self-worth.

Social Skills - Team work, Collaboration and Social Interaction

• Games encourage team-work and collaboration. Players in the same team learn to capitalize on each other’s resources and skills. Each individual in the team depends on and is accountable to each other.

• Games require players to come to a consensus on the standards/criteria of performance and provide opportunities for self and peer assessment.

• Learn how to keep friends and playmates who are not always understanding and self-sacrificing.

• Learn to respect and appreciate the services of their mentors.

Social Skills - Leadership and Mentoring Roles

• Mentors learn through instructional interaction how to guide and scaffold the learner’s abilities.

• A sense of responsibility is instilled in the older ones who teach the younger ones how to play. They become sensitive and responsive to the needs of the learner.

• Leaders and mentors learn group management and also how to manage conflict.
**Sense of Belonging and Identity**

- Norms and values of the community are reiterated in how, where, when and whom to play with.

- Mentoring ensures the transmission of cultural knowledge from generation to generation.

- The continuity of local skills, physical vocabulary, dialects are reinforced through gesture, movement and songs.

- Cultural approaches used in mentoring, conflict handling and group management are reinforced.

**Self-Development Skills - Challenging**

- Games allow the player (learner) a structured system for attaining goals.

- Games are challenging – player (learner) is nudged by the competency of the other players to master the tasks/skills.

- Players (learners) become engaged because the outer borders of the tasks or skills are constantly pushed further as players master the skills together with their peers.

**Self-Development Skills - Sense of achievement, self-worth and self-esteem**

- Games allow players to become active agents in controlling their own learning experience.

- Players feel their strategies, action and decisions do matter, as attaining the goal is in their hands.

- Players learn to manage and deal with success and failure.

- Players are able to achieve a sense of accomplishment. Losses are temporary setbacks that can be overcome with practice.
THE PSYCHOMOTOR (DOING) DOMAIN

Playing games involves a large range of open-ended, sensory, natural and manipulative experiences.

Skills in the psychomotor domain involve the ability to physically use small/large muscles to manipulate tools as well as the body and limbs.

*Fine & Gross Motor Skills*

- Games draw attention to the fundamental role of imitation in skill acquisition.

- Some games provide opportunity for control of the fine movements of hands/feet, including those which require grip and accuracy when manipulating equipment and small objects.

- Running, jumping, skipping, hopping and rolling games create opportunities for the children to explore and develop physical agility, strength, flexibility, control, balance and coordination of limbs or whole body