The Environment & The Five Senses: Engaging Young Minds with a Holistic Approach to Learning

The Important Symbol and Significance of Hopi Corn to the Hopi Way of Life

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## Author Note:

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#### Introduction

Growing up with my grandfather at Shongopavi Village is a memory I will always cherish. I can remember going to my late great- grandfather's cornfield in the summer. The hot sunny days and family would all be at the field ready to plant. My grandfather, father, uncles, and cousin brothers would have their planting sticks ready, prepared to dig. I would sit on the side with grandmother, aunties, and cousin sisters, and we would be getting lunch ready for the men and boys. I would sit and watch them dig into the ground with their planting sticks and drop corn kernels into the hole they had dug. I would sneak to my father and ask if I could help plant. My grandmother and aunties told me that it was for the men to do. My father would let me help him, though, and I will always remember him telling me it was okay to learn how to plant corn and other vegetables. I would one day have to grow my own field. I was always eager to learn how to plant, when to harvest, and prepare what we had harvested. The ground at that time was moist and not dry like it is now. I would go with my father or grandfather to check on the field and be excited to see the corn growing even though we did not water daily. At the time, I did not know the way we planted was called dry planting. The digging of the sand felt good on my hands, the smell of wet sand, the hot sun making me thirsty, seeing rabbits, butterflies, and knowing I was contributing to our family. The stories my grandparents would tell myself and my cousins on how they grew up. The kinds of food they survived on, the clothes they had to sew, the shoes they had worn, and even having much livestock. Songs my grandfather would sing to us. Some songs were of planting, and now I do not remember the words. I asked my father and uncles about the songs, and they do not remember as well. When the family harvested, the females would prepare the corn; making stew, piki, blue mush, bread, and other food items we would eat. I want my students to learn some of the teachings of planting. The colors, how corn can be prepared, and even using the corn husk for baking grounded corn to make cornbread. Through this curriculum, students will learn what is needed to grow corn and its science. All students will be involved socially and emotionally through this curriculum unit.

### **Context**

Moencopi Head Start is located within the village of Moencopi on the Hopi reservation, which is east of Tuba City. Both locations are side by side, and what divides Moencopi and Tuba City is the intersection. Moencopi Head Start is one out of five centers that have been operating for over 30 years. We also serve 10% of children with special needs and are referred by the Peeps Program by the Tuba City Public School. The Peeps Program will go to the Head Start Center and provide service to the students who have an IEP once a week. Their services consist of Speech Delay, Cognitive, or any other services a child may need. The program also screens students by screening them with a kit which is called the Dial 4. It covers Motor, Cognitive, Language, and Concepts. The Center I work at consists of eleven staff.

The Head Start that I work at has two classrooms and four sessions. There are two-morning sessions in the morning and two in the afternoon. Each class has 3, 4, and some 5-year-olds. The Head Start serves a mixture of Hopi, Navajo, some Anglo, and Latino students. Some of the 4 and 5-year-olds will be in Head Start for two years. They are the ones who already know the rules, the classroom environment, and the daily routine. One of the approaches to learning in our Center is through language, which is taught in English, Hopi, and sign language with staff's help.

Student school days are Monday through Thursday, and sometimes we have make-up days, which will take place on a Friday. The morning class begins at 8 am and ends at noon. The afternoon class starts at noon and ends at 4 pm.

The Head Start serves low-income and 10% high-income families. Enrollment is open for all nationalities and is ongoing for the entire school year. The program has a Parent Handbook which is given to all parents. In the handbook is what Head Start is about and what is offered within the program. The mission statement is also mentioned and that the program will teach Hopilavayi. We have good parent involvement throughout the school year. The parents, guardians, and community members want us to teach the Hopi language and traditional values. The Head Start where I work has multicultural students, and some parents want staff to teach some of their cultures. In our program, we use the Hopi Curriculum and the Strategies and Goals books to teach. I taught what I could in Hopi, Navajo, Spanish, and some sign language in my class. Some parents were comfortable with the multicultural teaching that I did, and some were not. Students picked up on all learning, and sign language was a big deal for some who did not like loud noises, so that I would use sign language at times.

The Strategies and Goals is a curriculum for the teaching staff to be on the same topic weekly. Once a month, the teaching staff would meet and collaborate on ideas, and we would all fill in our lesson plan the same for the whole month until we meet again for the next month. The curriculum packet has books to read, rhyming words, games, and science activities.

#### Rationale

Having and growing corn is essential to the Hopi way of life on the reservation. The men are the ones who are to show the young men how, when, what planting tools to use, and the responsibility they would have to have for their cornfield. Knowing the stages of when the corn grows and when the corn has grown to its maturity, the staff and students will see the different colors of the corn. The Hopi Head Start has different nationalities enrolled within the program. Teaching this topic would take all the staff to teach due to some students being Hopi, Navajo, and some students are hearing impaired. This would have to be taught in English, Hopi, and sign language. All students will benefit from learning taught in the three languages. From the three languages being comprehended, the students will carry that on to the Elementary School. Each tribe has its own unique way of planting crops. Harvesting time is a time for families to gather together to harvest and is a great time to teach young children the importance of having corn for their families. The many uses during the year. Making the children aware of the difference between organic and store-bought corn will be discussed. Knowing that it can be cooked in many different ways and the other uses, it can be used during ceremonies. Stories and songs can also be implemented from the Hopi and the English version. Going on field trips to the local farmer's field would be educational for all students. Being outdoors and using our senses on local field trips and noticing the different environments from the city. Emotional, Social Development, Communication Skills, and Language will all be going on during field trip days. Having the nutritionist cook the corn in different ways gives the students a taste and idea of how corn is eaten.

## **Content Objectives**

#### Corn

According to Streit (2018), Corn began in Mexico over 9,000 years ago and was introduced worldwide. As for the Indegnious people they grew and harvested corn which was the main source of food to feed their families (Healthline, 2018).

## Importance of Hopi Language

According to Anit Poleahla, Hopilavayi pas himu. The hopi language is really important. All of our ceremonies within our tradition are in Hopi- the talks, songs, rituals, and initiations. In order to understand, we must know the language. Hopi is our life, not just our name.

The Hopi Language is more than just a method of communicating on a day-to-day basis. Our Hopi ancestors left their clan markings and other symbols all over the ancient homelands during their migrations. The Hopi legends, prophecies and the language itself have been passed down from generation to generation orally, relying entirely on the language of Hopi forefathers to give it color and excitement and depth. Our language is everything. It connects us to our ancestors. (Message from the President).

#### **Emotional**

Just like adults, children need to develop strategies for managing their emotions, so that they can build social-emotional skills. When children are more socially and emotionally aware and skilled, they can more effectively navigate relationships, calm down and problem solve when challenges arise.

Helping children to identify and label emotions is an important first step. Many preschoolers do not yet have the vocabulary to identify feeling words like angry or frustrated, or have the skills to "read" facial cues or to interpret body language. Adults support children's social-emotional development when they label and talk about emotions (Talking with Preschoolers About Emotions).

### **Alignment with Standards**

These are a few Educational Goals for the Hopi Culture and Language Curriculum (P. 5-13)

- Children will develop a positive self-concept, recognizing their uniqueness about clanship, personal traits, identity, creativeness, and willingness to learn.
- Children will develop a sense of belonging and acceptance by their school and village community which they are affiliated with, to become a valued member of that community.
- Children will be provided opportunities to become fluent and literate in both English and Hopi languages to be full participants in both cultures.

### RUNNING HEAD: The Important Symbol and Significance

• Children will develop an appreciation for their own culture and language and cultures and languages of a diverse world around them.

# Social and Emotional Development:

- Develop a positive self-image by building self-confidence and self-esteem, encouraging responsibility, problem-solving, and learning self-control.
- Develop respect and appreciation of their cultures.

# Language Development:

- Develop the ability to express themselves in both English and Hopi.
- Develop the ability to develop vocabulary and articulation skills.

Science: To increase observation, problem-solving, and exploration
Objective: Children will become aware of themselves as unique individuals, awareness
Of their five senses and gaining an awareness of the environment that is different from
Their own homes. In reference to the natural environment, they will learn to respect
Their surroundings.

### Nutrition/Cooking:

Staff, parents, or presenters demonstrate cultural cooking. Display and discuss with children the uses of various natural materials in cooking processes such as (yucca, corn husk, corn leaves, etc.) also other tools, mata, and tuma. Display natural herbs that are also used and discuss the importance of the usage.

We implement the Hopi Curriculum during the school year for the Hopi students' self-identities and knowledge of their Hopi culture. Our children need to have a strong self-identity and know their role in the community. The curriculum is sectioned off by the months from September to May.

For this curriculum unit, I will be using October and introducing the importance of corn. This section covers terminology words, health, nutrition, group time, housekeeping, outside activities, and the science of harvesting. Hopi language is the main focus of my topic. I will be teaching some Hopi words which will not be too difficult to pronounce. Family members can also help with teaching their child at home with the language. Navajo students can also learn the language. Students who need sign language instruction can also sign for simple words about my topic.

The Hopi curriculum has two themes for October/Angakmuya. The first theme is Tuho'os/Autumn, and the second is Natwani/Harvested Crops. There are seven concepts for the month and vocabulary words to be taught in Hopi for the month. I will be making a lesson plan each week. The first week will introduce the autumn season and the concepts; the second week will introduce planting and the steps taken into planting. The third week will be Harvesting corn, and the fourth week will be presenting the nutritional part of eating corn. Stories and songs will also be implemented throughout the month.

Song, Music, and Dance

## RUNNING HEAD: The Important Symbol and Significance

Storytelling also included songs, music, poetry, and dance as a way to connect tribal members and illustrate their history.

In addition to being a teaching method, these stories became methods of entertaining the tribe. Hero myths and folklore were other forms of storytelling that saw seemingly

Ordinary men were given superhero powers and gave tribal men a sense of pride within their People.

Storytelling was an essential method for Native Americans to pass down their history And traditions and can be seen as the seeds from which entertainers, teachers, and Historians grew. Preserving History: The Importance of Storytelling in Native American Culture (BrightHub Education) (2021-11-27).

Each child is unique in their own way of learning and how they are taught in their home. By teaching students, they can connect the school setting and home setting to the curriculum.

# **Teaching Strategies**

#### FlashCards

The teaching staff will make flashcards with pictures of corn which will then have the primary colors. Each card will have colors in Hopi, English, and sign language. The strategy to teach this is to do this daily during group time. During morning group time, the teacher will observe the students' as they verbally name the colors in the three languages as stated above so that the teacher can assess the students' learning of the flashcard materials.

#### Number cards

The teaching staff will make cards with pictures of corn which will have the number and the number of corn kernels on each card. Again, the numbers will be written in Hopi, English, and sign language. The strategy is to teach this daily during group time. The teacher will observe students' during group time as they verbally count and recognize the numbers on the number cards. The teacher can assess the students as they demonstrate the three languages as the students learn from the number cards.

### Field Trip

Local field trips to the local corn fields would be an excellent opportunity for students to use their senses and see how tall corn can grow and the different colors of corn. Being outdoors opens up a great opportunity to also use their five senses. Observation done by the teacher will be done during a field trip. Open ended questions will be asked of what the students see of how big the corn field is, hear the water as it runs through the corn field, smelling of the corn, the fresh air and the wet soil, touching of the corn stalk, and digging in the wet soil. The teacher can assess the students by asking to compare their corn growing activity done in the classroom compared to the corn field.

## **Outdoor Activity**

The strategy for outdoor play would be to have the students dig holes and pretend to plant. After the staff demonstrate how to plant and the tools, students will be able to display them while playing outside. The teacher can assess by asking the students to compare the planting strategies, and planting tools used by the person who planted in his field compared to the strategies and planting tools they used at school during outdoor play.

### Library

The strategy for the library area would be to have books available for the students. The books would have to be in Hopi and English. Implementing reading the books would be the strategy to teaching the students those words can be read. The teacher will assess by asking questions about books on planting and the book Celebrate My Hopi Corn. Book making can also be part of assessment by drawing pictures of corn they see in the books that were read to them.

# Cooking

The cook will implement this strategy by cooking nutritional foods made of white and blue corn and cornmeal. Students can participate in preparing some of the Indigenous food. The teacher can observe the students as they participate in some cooking activities and use their senses. Touching the grounded blue corn, smelling the blue corn meal when it is cooked. Measuring as they help make blue marbles (Povolpiki), Gruel Wutaqa), and other foods that can be made by blue cornmeal. Assessment can be done by asking to compare corn grown in a corn field and corn bought from the grocery store. The different texture of the corn tusk from the field compared to the store-bought corn.

#### **Classroom Activities**

Using the curriculum will allow the Head Start students to learn the Hopi Culture through group time teaching, songs, and stories. Having them use their five senses during outdoor play and through the field trip to a local field.

Teaching the curriculum will take four weeks, and it will be focused on teaching the corn being the Hopi way of life. The field trip, outdoor play, science, and group time will all be a big part of teaching the curriculum and teaching Hopi words.

The curriculum that I am developing is for Head Start students to learn their Hopilavayi through the teaching strategies that I will be implementing for October. Each week will consist of different lesson plans and will also collaborate with the Creative Curriculum. Hopi books, songs, stories will be done daily, and using their five senses is a daily learning process they use.

Week 1- Introduction to teaching the importance of growing corn. Letters will be given to the parent or guardian, giving them information on what the month of October lesson plan will be based on. Weekly notes will be sent out with what will be taught every day. I will introduce our topic for the month and ask questions if they have a cornfield or family members. During group

time, I will introduce the concepts for the month along with a discussion of corn. I will have cards with the pictures of corn which will be colored and have the Native wordings and sign language of the colors. Number cards will also be introduced along with shapes. I will introduce the story of corn and how Hopi men plant, and what is used to plant with. At the end of the week, I will go over what I have taught to the students during the week.

Week 2- The group time will be going over concepts, demonstrating what is needed to have to plant, and going outdoors to dig holes with a planting stick. During all the teaching, Hopi terms will be used for this curriculum. Activity will be coloring pictures of corn throughout the week, and by the end of the week, a book will be made. Cooking demonstrations will be done once during the week.

Week 3- During morning small group time, I will talk about the concepts of corn that I taught the week before. Field trip day with permission from the Hopi Head Start and the parents at a local field will be before the end of the week. Hopefully, students will be able to pick corn and cook for the students the next day. Students will be using their five senses on the field trip. The artwork will be on drawing a cornfield before our trip and a drawing after.

Week 4- During the last week, the cook will demonstrate some recipes using blue cornmeal. During this week, I will go over what we have learned for October and the curriculum.

Hopi Tribal Moencopi Head Start Learning Center Activities

## **Vocabulary Words for Practice:**

Hogni- Harvest Natwani- Crop **Uuvi- Plant** Qaa'o- Dry Corn Sami- Fresh Corn Kutuki- Parched corn Soongo- Corn Cob Paalangpu- Red Sakwa- Blue Kavati- Purple Sikyangpu- Yellow **Qotsa-White** Suukya- One Looyom- Two Paavom- Three Naaloyom- Four

Learning	Classroom	Materials	Objectives
Goals	Activities		,

GOAL: Children will be given the opportunity to engage in conversations.  L.D.2a Uses new and expanding vocabulary and grammar in speech, including: positional and directional words, temporal words, and comparative words.  L.D.2b Uses rare words.  L.D.6b Makes relevant responses to questions and comments from others.  L.D.6c Initiates conversations  L.D.6d Sustains or expands conversations.	-Introduction the importance of growing corn along with the concepts for the monthDiscuss the different colors of some corn, Palaqa'o(Red), Sakwapqa'o (Blue), Sikyaqa'o (yellow), Qotsaqa'o (White)Name parts of a dried corn qaa'o- corn, humita- shelled, soongo- corn cob, silakvu- huskGo over picture cards of corn which will be colored and have the Hopilavayi language, English and sign language colorsAsk questions if any of the students' families has a cornfield.	-The teacher can bring some Red, Blue, Yellow, and White corn in for the students to use their five sensesDescribe the texture of the corn, the colors, the length of some corn. Students can also smell the cornIntroduce the picture cards which will be colored.	Language Development
GOAL: Children will have the opportunity to comprehend and respond to books and other texts.  L.L.1 Holds a book right side up with the front cover facing the reader, carefully turning the pages from front to back, one page at a time.  L.L.1a Understands	-Read Celebrate my Hopi Corn -Watch Sign Language Color Video -Sing with students	-Celebrate my Hopi Corn (Book) -Sign Language Color video (Hartmann, J. 2021) -Yok' Yok' Yok' Vani	Language and Literacy

that the book has a title, author, and illustrator. L.L.2a Recognizes words that rhyme in familiar songs, and stories. L.L.3b Asks and answers a variety of questions about stories told or read aloud.			
Goal: Children will be able to understand numbers, their relationship, and operations  M.K.S.1b Uses and creates symbols to represent numbers. M.K.S.3a Counts a collection of up to 10 items and uses the last counting word to tell "how many?" M.K.S.3b Identifies numerals 1-10. M.K.S.4 Matches numerals to the quantities they represent.	-Bring shelled corn of different colors and classify the corn by color and graphShow the different kinds of corn that is sold in the storeBring popcorn kernels and show the difference between corn from the field, the store and corn kernels which can be popped into popcornSorting and matching the colors and numbers	-Provide cupcake pans for students to sort cornPrint numbers for the cupcake pans	Mathematics Knowledge & Skills
GOAL: Children will be able to use scientific inquiry skills.  SKS 2. Examines attributes of objects, living things and natural events in the	-Show students a sequence picture of how corn growsMake small posters for students to draw their observations of their corn growing in a plastic cup. From start to finish.	-Have poster boards available along with pictures of corn growing. -Sand and Planting soil. -Plastic Cup -Seeds (corn) -Water	Science Knowledge & Skills

environment. SKS 4c. Predicts the outcome of investigation based on observations. SKS 5a. Uses a variety of appropriate tools and materials to complete a planned task or investigation. SKS 6b. Uses a variety of materials to record and organize data.	-Students will plant corn seeds in a plastic cup which will be filled with planting soil with soil from outside. They will be responsible for watering their plantObservation will take place as the corn begins to sproutShow the traditional way of shelling corn		
GOAL: Children will be able to demonstrate gross motor manipulative skills.  PDH 1. Moves with control. PDH 4a. Uses hands and fingers to manipulate a variety of tools and materials. PHD 4b. Uses fine motor skills in daily living.	-Make a rain stick and rattles (homemade instruments ) -Running, walking and dancing	-Paper towel roll, unpopped popcorn or small pebbles, cardboard, heavy duty tape and markers or paintPaper plates, small pebbles or beads, paper towel roll, heavy duty tape and markers.	Physical Development & Health
GOALS: Children will be given the opportunity to regulate their own emotions and behaviors.  S.E. 1. Demonstrates knowledge of self-identity.	-Invite someone who can demonstrate the process of grinding cornDemonstrate shelling corn with staff or invite someone to demonstrate and involve the students -Community involvement	-Corn Grinder -Dry corn (Qaa'o) -Sifter basket	Social and Emotional Development

S.E. 2. Associates emotions with words and facial expressions. S.E. 7. Responds when adults or other children initiate interactions. S.E. 9. Demonstrates self-confidence. S.E. 12c. Shows respect for learning materials and toys.			
GOAL: Children will be given the opportunity to participate in musical activities that allow creative and imaginative expressions.  C.A.E 5a. Uses a variety of materials to create original works of art. C.A.E. 6b. Participates in creative art activities that are part of the child's community and culture.	-Corn cob painting using fall color paints to make any kind of art picture using dried corn cob.	-Painting paper -Tempera paint (fall colors) -Dried corn cobs	Creative Arts Expression
Goal: Children will be given the opportunity to express initiative and curiosity.  A.L. 1 Selects an activity when choices are	-Students will be served foods that are made from blue cornmeal and corn to taste some traditional foodExplain where and how the blue cornmeal is made.	-Blue corn bread, blue marbles, blue mush, blue frybread, and blue pancakes, blue egg gravy. -Hominy Stew -Tortillas	Approaches to Learning

provided. A.L. 2. Shows interest and learning new things and trying new experiences. A.L. 3b. Ask questions to get information. A.L. 4. Initiates with others.		

### **Student Assessment Plan**

Students will be learning the different colors in Hopi, English, and sign language daily. During group time, I will have pictures of uncolored pictures of corn and instruct the students to color corn specific colors that Hopi Farmers grow in their fields. When the coloring pages of corn are finished, students will make a book to take home and show family. The colors will be written in Hopi, English, and sign language. The science part of the curriculum asks questions on how corn is planted, what is needed for corn to grow, and explores the cause and effect of planting corn.

The Flash Cards – During morning group time the teacher will observe the students' as they verbally name the colors in the three languages as stated above so that the teacher can assess the students' learning of the flashcard materials.

The Number Cards -The teacher will observe students' during group time as they verbally count and recognize the numbers on the number cards. The teacher can assess the students as they demonstrate the three languages as the students learn from the number cards.

Field Trip - The teacher can assess the students by asking to compare their corn growing activity done in the classroom compared to the corn field.

Outdoor Activity - The teacher can assess by asking the students to compare the planting strategies, and planting tools used by the person who planted in his field compared to the strategies and planting tools they used at school during outdoor play.

#### Resources

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