



Farming Practices as Funds of Knowledge for Multilingual Learners

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Purpose

This OSR project builds upon IUPUC teacher preparation course work on integrating diverse *funds of knowledge* (Moll et al., 1992; González, Moll, & Amanti, 2005) into curricula and instruction. Recent research has demonstrated the value of inviting and learning from farming practices as *funds of knowledge* as a supportive educational practice (Harper, 2016). This project builds on this research by seeking to understand farming practices as valuable cultural funds of knowledge, and to integrate these perspectives into a revised lesson plan introducing the concept of *funds of knowledge* to a culturally and linguistically diverse classroom.

Theoretical Framework

Funds of Knowledge Conceptualized

Moll et al., 1992

Moll et al. (1992) describe *funds of knowledge* as the knowledge students bring from their families and home communities to the classroom, and that can be used to enhance family engagement, concept and skill development, curricular relevancy, and positive learning environments.

González, Moll, & Amanti, 2005

González et al. (2005) offer key examples of *funds of knowledge* as home language use, family values and traditions, caregiving practices, family roles and responsibilities, family professional knowledge, among other traits.

Harper, 2016

Harper (2016) found sustainability science to be an effective way to integrate Ka-ren immigrant family funds of knowledge into curricula and instruction in the elementary classroom, and enabled parent agency in defining the cultural identities of their community members.

Velez-Ibanez & Greenburg, 1992

Public schools do not acknowledge the “strategic and cultural resources” or “funds of knowledge” (p. 313) that U.S.-Mexican ELLs bring to the classroom from their home environments. Constructive relationships among students, teachers, and parents are needed to achieve equity in the classroom.

Gallo & Link, 2015

Preparing educators to practice *humanizing pedagogies* that draw upon ELLs’ *politicized funds of knowledge* can support students in developing critical thinking, literacy skills, and to participate in the process of social equity for all by connecting their lived experiences to school curricula.

Methods

This grounded theory (Strauss & Corbin, 1998) qualitative inquiry project (Merriam & Tisdell, 2015) involved conducting interviews with four participants with farming knowledge and experience in the Midwest and in a region culturally, linguistically, ecologically and politically distinct from their own. Interviews lasting 30-45 minutes on average, asked participants to consider how culture *shapes* and *is shaped* by farming practices. The participants were identified based on purposeful selection (Merriam & Tisdell, 2015). Constant comparative analysis (Merriam & Tisdell, 2015) was used to identify themes across the interviews and to create categories and sub-categories to analyze the data and interpret the findings to inform lesson plan design. Findings were considered for how farming practices as *funds of knowledge* may be integrated into elementary curricula and instruction, including the revision of a lesson plan introducing the concept of *funds of knowledge* (Moll et al., 1992; Gonzalez et al., 2005) to elementary multilingual learners, and how this lesson plan met TESOL Standards 3a, 3e, and 5a.

Assignment

Develop a lesson plan that introduces the concept, *funds of knowledge*, to elementary students in a culturally and linguistically diverse classroom. *Funds of knowledge refers to the knowledge and skills that students bring from their home cultures to the classroom (e.g., home language use, family values and traditions, caregiving practices, occupational knowledge, ecological attitudes, etc.).* This term often is used to describe strengths of cultural or linguistic groups otherwise not recognized by the school or broader society. As teachers, it is important to recognize, value, and draw upon the strengths that all of our students bring to our classroom

Teaching English as a Second or Other Language (TESOL) preK-12 Teacher Preparation Standards

TESOL 1a: Candidates demonstrate knowledge of English language structures in different discourse contexts to promote acquisition of reading, writing, speaking, and listening skills across content areas. Candidates serve as language models for ELLs.

TESOL 3a: Candidates plan for culturally and linguistically relevant, supportive environments that promote ELLs’ learning. Candidates design scaffolded instruction of language and literacies to support standards and curricular objectives for ELLs’ in the content areas.

TESOL 5a: Candidates demonstrate knowledge of effective collaboration strategies in order to plan ways to serve as a resource for ELL instruction, support educators and school staff, and advocate for ELLs.

Lesson Plan

Farming Practices as Funds of Knowledge for Multilingual Learners

Teaching Context:

Grade Level(s): 5th Students: 20-25 Multilingual Learners: 50-75%

Lesson Planning:

Indiana Science Standard 5.ESS.3: Investigate ways individual U.S. communities protect the Earth’s resources and environment.

Learning Outcome: Students will COMPARE how communities in three regions practice sustainable farming.

Indiana Social Studies Standard 5.2.8, Roles of Citizens: Describe group and individual actions that illustrate civic virtues, such as civility, cooperation, respect, and responsible participation.

Learning Outcome: Students will DESCRIBE sustainable farming practices in three regions as *funds of knowledge*.

WIDA ELD Standard 3 and WIDA ELD Standard 5: English language learners communicate information, ideas and concepts necessary for academic success in the content areas of Science and Social Studies

Language Objectives: Students will IDENTIFY and DESCRIBE similarities and differences in sustainable farming practices as *funds of knowledge* in Honduras, Guatemala, and the U.S. (Indiana).

Key Terms/Vocabulary:

Community- A group of people living in the same place or who have a particular characteristic in common.

Countries - A nation with its own government in a certain territory.

Culture- the customs, arts, and social institutions of a particular nation, people, or other social groups.

Sustainable Farming- The activity or business of growing crops and raising livestock, in a way that can be supported over time.

Compare- To note similarities and differences between things

Garden- A piece of land for growing vegetables, fruit, herbs, flowers.

Assessment Planning:

Assessment: Formal Formative

What: Farming Around the World Graphic Organizer

Students will complete a Venn Diagram using sentence frames to describe similar and different sustainable farming practices across three regions: Honduras, Guatemala, and the U.S.

Lesson Instruction:

Lesson Introduction: Share with the class three pictures of *sustainable farming* practices, in Honduras, Guatemala, and the U.S. Ask if anyone knows or can guess what, *sustainable farming*, means. Repeat student ideas in English and Spanish and write ideas in both languages on the board. Provide a definition for sustainable farming in English and Spanish. Explain that sustainable farming is important for all countries as everyone needs access to sustainable, nutritious food. Note the class will learn about *sustainable farming practices* in three different countries today: **Honduras, Guatemala, and the U.S. - Columbus, IN!** Introduce the book, ***The Good Garden: How One Family Went from Hunger to Having Enough*** (Milway, 2010). Ask the class to examine the title and picture on the front cover to predict what the book may be about. Explain the book is about one family’s work in Honduras to begin sustainable farming practices, by creating a garden to provide sustainable food security for local families.

Learning Activities: Pass out the Venn Diagram graphic organizer.

I DO: Model for students how to complete the **Honduras** section. Read ***The Good Garden*** in English, with Spanish translation by the instructional aide. Complete this sentence frame on the board: “In Honduras, sustainable farming can include _____ and _____.”

WE DO: Invite the instructional aide to share in English and Spanish about sustainable farming practices on her grandparents’ farm in **Guatemala**. As a class, complete this sentence frame on the board: “In Guatemala, sustainable farming can include _____ and _____.”

YOU DO: Play video a local farmer in **Columbus, IN** created about sustainable farming practices that many farmers use in IN. Invite students to pair-share and complete this sentence frame by speaking and writing, in English OR another language: “In Columbus, IN, sustainable farming can include _____ and _____.”

Lesson Conclusion: Invite pairs to verbally respond to the following questions: ***What are similarities across the sustainable farming practices in Honduras, Guatemala, and Indiana? What are differences?*** Students will be invited to use their Venn Diagrams and the following sentence frames to respond: “One similarity in sustainable farming practices across the three regions is _____.” and “One similarity in sustainable farming practices across the three regions is _____.” Ask students how these practices relate to the concept, *funds of knowledge*, shared in the previous lesson. Conclude that the sustainable farming practices discussed today are *funds of knowledge* of the cultures and families within those regions, their agricultural, environmental, and professional knowledge.

Lesson Reflection:

This lesson plan meets Teaching English to Speakers of Other Languages (TESOL) preK-12 Teacher Preparation Standards 1c, 3a, and 5a, by 1c) integrating language structures and discourse contexts of Science and Social Studies; 3a) planning culturally and linguistically relevant learning experiences; and 5a) collaborating with a regional farmers and instructional aide in content and language support.

Results

The findings from this study confirm that culture *shapes* and *is shaped* by farming practices, and demonstrates contrasts between U.S. and international regions in *how* culture and farming practices shape each other. Interview analyses revealed key contrasts across regions in the following thematic areas: *automated vs. manual labor, climate impact on food production, individual vs. social farming, institutionalized vs. personalized practices*, and the *politics of land ownership*.

Automated vs. Manual Labor

“Here in the U.S. we are so reliant on technology and the data it gives us.” (Participant 4 with farming experience in Peru, Ecuador, Canada)

Climate Impact on Food

“Where we live determines the climate and what is possible to grow.” (Participant 1 with farming experience in Philippines)

Individual vs. Social Farming

Get to know your neighbors and the services they can offer for free. That is priceless. (Participant 2 with farming experience in Bolivia)

Institutionalized vs. Personalized Practices

“In America we are taught *Go big and do what makes it easier*, but in Peru [the focus is] *take care of yourself, take care of the land, take care of others.*” (Participant 4 with farming experience in Peru, Ecuador, CA)

Politics of Land Ownership

“Governments and institutions are just a way for whoever has control to have legitimacy to look the other way on the people who they want to get ahead.” (Participant 3 with farming experience in Bolivia)

Significance

Farming Practices as Funds of Knowledge

This study demonstrate ways culture and farming shape one another, and reveal farming practices as a significant *fund of knowledge* that students and their families may bring to a classroom and school community. Understanding regional and international farming practices as interconnected with student culture supports teachers in integrating this particular fund of knowledge into curricula and instruction.

Implications for Elementary Curricula & Instruction

Automated vs. Manual Labor

Examine values and limitations of automated vs. manual practices in U.S. & abroad. Ex: Value of knowing every cow in Ecuador vs. producing higher volume of milk in big farms in the U.S.

Climate Impact on Food Production

Compare climate-food connection in U.S. and abroad. Ex: Tropical foods produced in Philippines, such as yams and coconuts

Individual vs. Social Farming

Study the benefits of individual and social farming in U.S. and abroad. Ex: Family and community connection for farmers in Philippines, Bolivia, Peru, and Ecuador

Institutionalized vs. Personalized Practices

Being part of a bigger system vs. knowing the land and one’s livestock on a more personal level. Ex: “Go big or go home” in U.S.

Politics of Land Ownership

Understanding politics and process of land ownership in U.S. and abroad. Ex: The official process and unofficial challenges face by farmers obtaining land permits in Bolivia

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