

**EMOTIONS ON THE GROUND: THE ROLE OF EMOTIONAL AND SYMBOLIC
COMPONENTS IN AN ADULT EDUCATION PROGRAM FOR WOMEN FARMERS
IN EGYPT: IMPLICATIONS FOR INTERNATIONAL TEAMWORK IN
AGRICULTURAL AND EXTENSION EDUCATION**

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Abstract

The emotional component of women learners toward the land and environment has strongly fostered their learning about sustainable agriculture in this particular extension program. Women have epitomized what Vygotsky (1926/1997, p.150) pointed to as: “functions of imagination and emotion” in education. The overarching purpose of the study was to explore the methods and techniques women utilized in learning and teaching agriculture in the agricultural extension setting and to describe exactly what happened in this experimental educational program. The paper represents one of the major findings of a larger study. The ethnographer’s focus was to illuminate how gender and emotional components in education played a significant role in this interactive educational process. In this descriptive study, data were gathered through semi-structured interviews, participant observation of learners and teachers, photographs and video tape, and documents and publication analysis. The study may, therefore, be transferable to other rural regions, with special attention to the varied cultural and social context around women. The findings should be applicable to women farmers in rural regions that share the same norms and values with women farmers in rural Egypt. In international and cross-cultural collaboration, it is necessary to understand the right emotions and symbols that make sense to the targeted group and are most utilized where the collaboration project will take place, especially if the targeted group happens to be women. One common factor among agricultural programs world over is that they already embrace emotion toward sustainability of land, resources, and more importantly people by fostering the means of a better livelihood.

Introduction

A flourishing and viable adult education program is one that is acquainted with the “emotional components of learning, gender, social, cultural, economical, and political influences on learners” (Hayes and Flannery, 2000, p. 20). “The personal commitment of a man to his skills, the intellectual commitment and the emotional commitment working together as one, has made the Ascent of Man” (Bronowski as cited in Bennis and Nanus, 1985, p. 187). Women farmers in the new lands of Egypt have made such an ascent and became an active part of the

rural livelihood when they shared their intellectual and emotional commitment for sustainable agriculture and sustainable environment.

The emotional component of women learners toward the land and environment has strongly fostered their learning about sustainable agriculture in this particular extension program. Women, with the help of their women teacher cohorts, have epitomized what Vygotsky (1926/1997) pointed to as: “functions of imagination and emotion” in education. Vygotsky (1926/1997, p.150) posited two functions of imagination: the first is the “*sequential imagination*, which is using elements that are well known by learners and part of their personal experiences to form the imagined subject; and the second is the *emotional function*, which is associating emotion with the elements of the taught subject” (Vygotsky, 1926/1997, p.150). In the new lands in Egypt, where people share rural culture and beliefs, women have imagined their land as a virgin woman, who in their rural culture is a symbol of youth, purity, and honor; and associated the emotion of protection and defense with the image of this young vulnerable woman. Women have seen conventional practices of agricultural besmirch and dishonor the purity of their land and environment. In their minds’ eye, women envisaged organic agricultural practices as the armor that protects their land and maintains its purity for safer yields for healthier generations. The educational experience is transferable to other countries in North Africa, Eastern Europe, and the Middle East that share similar beliefs or norms and are willing to make attempts to elevate the status of their women.

This qualitative study was conducted in the new lands in Egypt, which have been recently reclaimed and irrigated. The lands were formerly desert covered with natural desert flora and plants, such as olives and figs. After reclamation, the lands were distributed and/or sold to individuals and groups to turn into productive farms to boost the national economy and increase food production. The government provided aid for the reclamation effort, while governmental and non-governmental organizations, and private sector assisted with farming and production efforts. New, primarily agricultural, communities now occupy these lands. The majority of the populations who permanently reside in these locals have a rural or farming background. Residents of the new land for the most part, adhere to conservative rural traditions, where land is treasured and women are sacred.

Purpose

The focus of this paper is on the role of sequential and emotional functions in a non-formal educational program on organic agriculture for rural women farmers in Egypt. The overarching purpose of the study was to explore the ways women learn and teach agriculture in adult education settings, and particularly agricultural extension settings. The paper represents one of the major findings of this study.

The ethnographer’s focus was to illuminate how gender and emotional components in education play a vital role in this teaching and learning process. The ultimate goal was to describe and document exactly what happened in this experimental educational program, therefore, the research is descriptive (LeCompte & Preissle, 1993). This descriptive study described the “interplay” among women learners and teachers as they occur naturally (LeCompte & Preissle, 1993, p.39).

Application of the often- forgotten emotional function and the overlooked component of gender (Hayes and Flannery, 2000), invigorated new approaches obtainable by women teachers and learners and refreshed the educators memory of a broader utilization of those components. On one hand, women’s role in agricultural extension is marginalized and limited, and women

have inadequate access to agricultural education resources (Axinn and Axinn, 1997). On the other hand, gender differences in education were found in the ways women know, acquire, learn, and produce knowledge (Belenky, Clinchy, Goldberger, and Tarule, 1986). Specifically in this study the discrepancy women encountered in rural areas resulted not only from the women's needs for agricultural education, but also to the unidentified needs of women farmers as learners. Typically, studies focus on women in formal educational settings, such as women in classrooms, women in academia, and women as staff and administrators in higher education. Studies have not investigated adult women as learners or teachers or women's experiences in a variety of educational settings including nonformal education. Prior to this study, women in nonformal educational settings have rarely been a major research focus. Studies have paid even less attention to women's learning and teaching experiences in agricultural training and agricultural extension settings. Nonetheless, women in agricultural extension education are vital to agriculture. It is crucial to develop inclusive learning and teachings methods to address the inconsistency and to include all the learning components and the surrounding contexts. The application of gender and emotional components demonstrates techniques that boost the improvement of educational programs and the learning environment. The intended outcomes of this study enhance the educational practices in agricultural extension and other educational programs. Knowing the influential learning components, educators, teachers, curriculum designers, and trainers should be able to properly address the learner outcomes and appropriately employ associated teaching methods.

Theoretical Framework

The key adult learning theory in this study was the functions of "imagination and emotions" in education by Vygotsky (1926/1997). Vygotsky (1926/1997) stated that "associating emotion with the elements of the taught subject will always make that subject real in learners' minds. Therefore, it is essential to arouse appropriate emotions in learners because every emotion possesses its own internal and external expression in learners" (p.152). Emotion was defined as the feeling or affective aspect of human behavior, and symbolic representation includes representation in terms of language as well as in terms of theoretical systems (Lefrancios, 1975).

Women in development, women in agricultural extension, and women in sustainable agriculture theories and studies were also explored (Blackburn, 1994). Women's learning must be understood within a broad social context encompassing the social determinants of gender roles and norms (Hayes and Flannery, 2000), as religious and cultural impact on agricultural education for women in Egypt are crucial. In this qualitative study, it was absolutely significant to understand the "cultural, social, gender, and economical contexts" of women farmers (Hayes and Flannery, 2000). It was also important to understand the women's perspective as learners not merely as producers, and their concept of organic agriculture practices. It certainly should follow that listening carefully to women's own words about their experiences in agriculture and describing their participation in networks is crucial for designing sustainable agricultural education programs. In reality a limited number of studies have been devoted to the investigation of women's positions within sustainable agriculture.

Methods

The people who come to see us bring us their stories. They hope they tell them well enough so that we understand the truth of their lives. They hope we know how to interpret their stories correctly.

(Coles, 1989, p.7)

The primary task of the study was to explore a new *phenomenon* of learning and teaching agriculture for women with a special attention to the gender role and to the cultural complexity surround the setting. Qualitative and ethnographic approaches were selected to conduct the inquiry. Ethnography was defined as both the product that tells a story about a group of people and the method of inquiry used to study this group (LeCompte & Preissle, 1993). Ethnography is used to study the human behavior in a certain discipline, record the details of a single phenomenon, and describe educational settings and contexts (LeCompte & Preissle, 1993, p.8). Ethnography has been especially important in research on education to examine how groups use symbols and social practices (LeCompte & Preissle, 1993). Since the study focuses on the role of emotions and symbolic components in the educational setting of women farmers; ethnography was employed to gather and interpret the data for this study. Moreover, what was most needed was an understanding of the culture and gender factors. Qualitative methodology was utilized to develop a comprehensive understanding of the phenomenon. “The openness of qualitative inquiry allows the researcher to approach the complexity of social interaction and to do justice to that complexity, as well as to respect it in its own right” (Glesne & Peshkin, 1992, p.7). The vividness of qualitative research in this study, which was discovered through the interaction with and the close observation of the research participants, enabled both the research participants and the researcher to learn detailed information and to discover new ideas about the phenomenon under investigation that were mutually beneficial for both parties.

The research participants for this study comprised what Patton (1990) called a “purposeful sampling”, which is based on specific criteria. The research participants were eight women farmers who own small-scale farms in the newly reclaimed land of Egypt and three women teachers who taught these women about organic practices. The experimental process of teaching and learning took place in the new lands by a non-governmental organization that devoted itself to instructing to these women.

In this study, data were gathered through semi-structured interviews, documents and publication analysis, and participant observation (Glesne & Peshkin, 1992; LeCompte & Preissle, 1993; Maxwell, 1996). Data were also gathered through visual documentation, such as photography and video tape in order to provide a comprehensive view of the setting and to catch the subtle details not easily observed by the human eye (Archer, 1997; and Erickson, 1992). The gathered data were coded in a process that included sorting, displaying, defining, clustering, and dividing into categories and subcategories (Huberman and Miles, 1994; LeCompte & Preissle, 1993; & Glesne and Peshkin, 1992). Data were synthesized into themes in order to reach the findings and conclusions of the study and tell the story of the experience (Glesne & Peshkin, 1992; LeCompte & Preissle, 1993; Maxwell, 1996).

Transferability

The current study represented an opportunity to learn about women’s ways of teaching and learning about sustainable agriculture in a nonformal setting in agriculture. The results of the study may apply in similar settings around the world. Even in the heart of rural America, this

study may be relevant. Before leaving the United States to conduct this research in the new lands in Egypt, the researcher met with American rural women in a network for food and agriculture - most worked in organic agriculture. The researcher learned about the needs of those in the network and their perceptions of organic agriculture and explored qualitative studies that discussed women farmers' perception of organic agriculture. Upon reaching the new lands in Egypt and asking women about their perceptions of organic agriculture, there were similarities more than discrepancies in the views of American women and Egyptian women farmers, especially when it comes to the health, well-being, and nutrition values of their families. Despite a distance of thousands miles, and language and cultural differences, common beliefs and values regarding organic agriculture and natural resource management were clearly found. For example, women in both cultures linked organic practices to healthier children and sustainable agricultural resources. Men farmers in both cultures expressed different reasons when practicing sustainable agriculture, such as the change in quality of life (Meares, 1997). The study may, therefore, be transferable to other rural regions, with special attention to the varied cultural and social context around women. The finding will be applicable to women farmers in rural regions that share the same norms and values with women farmers in rural Egypt.

Trustworthiness

Trustworthiness implies validity in qualitative research. Maxwell (1996) uses validity to refer to the "correctness, credibility of description, conclusion, explanation, and interpretation" (p.87). A diverse range of data sources or data collection methods, called "triangulation" were used to insure the maximum richness and accuracy (Maxwell, 1996). Data gathered through interviews (both audio taped and transcribed), photographs, videotape of each of the research participants; an analysis of relevant documents as another source of data; and observation of the participants. Triangulation reduced the risk of bias to one particular method or source and allowed relevant assessment of generality of the developed explanation (Maxwell, 1996). Credibility is established by examining all possible casual and consequential factors attendant to the educational setting (LeCompte & Preissle, 1993, p.39). For example, the possibilities and consequences of assigning a male teacher to the setting were examined to assess the effect and the differences from the current situation. Additionally, two men teachers were interviewed simultaneously with women interviewees during the study.

Findings

The emotional and sequential components in this setting maximized and fostered women's learning on sustainable agriculture practices. Women developed a sense of belief in and understating of sustainable practices and organic agriculture through utilizing emotional learning and imagination. According to Vygotsky (1926/1997), "associating emotion with the elements of the taught subject will always make that subject real in learners' minds. Therefore, it is essential to arouse appropriate emotions in learners because every emotion possesses its own internal and external expression in learners" (p.152). Elements of the emotional components in this program include:

Symbolizing

Rural women and men, Muslims and Christians, described the norm of protecting unmarried young women's virginity as nobleness, dignity, grace of women, protection, and preciousness. In the case of using "virginity" as symbol and image in teaching women about

organic agriculture advantages, women teachers, who understand the culture and norms, have used images with elements that the women farmers are very familiar with and pleasantly attached to. As a result, the images stored in the women's memories in their own language and in their own definitions and in the way they perceive these images in the real life; (e.g. importance of virginity of land not less than importance of virginity of woman). Choosing the right symbol is an important step where typically teachers must intervene.

Constructing the appropriate emotion toward the symbol

Vygotsky (1926/1997, p.152) described this stage of learning as constructing an emotional bond with the symbol so that the information would be stored in the in the emotional center of the human brain – the most easily recalled and long-term storage center for information (Armstrong, 1977). The images of land and resources and as virgin pure women not only stimulated the women farmers' brains to think of preserving the land and resources, but also stimulated their emotions of caring, sympathizing, and cherishing, hence, it provoked their actions of restoring and preserving the treasures represented in the land and resources. These women believe in the image of virginity of women prior to marriage to describe purity and honor. Land and resources preservation was perceived as body and soul preservation. Prior to introducing the knowledge of organic and sustainable agriculture, teachers started the educational process by founding the proper emotions that nurtured the rest of the process and were unforgettable by women.

Utilizing the emotions and symbols to learn about organic and agriculture and land stewardship

Women repeated "how can I forget that this land is virgin and using conventional techniques will hurt this virginity". The unforgettable symbol, along with the appropriate emotions fostered creative learning and an opportunity to developing more similar symbols to describe organic agriculture. According to Vygotsky (1926/1997, p.152), "associating emotion with the elements of the taught subject will always make that subject real in learners' minds. Therefore, it is essential to arouse appropriate emotions in learners because every emotion possesses its own internal and external expression in learners" (p.152). The emotional function of learning enhanced women's acquiring of knowledge, judging, and adapting new practices. The combined efforts of teaching the basics science of sustainable agriculture and presenting explicit support for the social and emotional domains resulted in achieving the most desired goals of the educational setting the most benefit for women farmers.

Things expressed by the person him or her self usually are unforgettable (Vygotsky, 1926/1997). Biologically, the human brain receives, stores, retrieves, and transforms information (Merriam and Caffarella, 1999). The long-term memory in the human brain system is that memory with the largest capacity for storage of events and knowledge over time (Merriam and Caffarella, 1999). The stored information in the emotional center of the human brain – the limbic system- is the most easily recalled center for long-term storage of information (Armstrong, 1977 as cited in Merriam and Caffarella, 1999, and Gamon and Wirth, 1999). When emotion is an aspect of education, "information is stored in a readily accessed area of the brain and recalled more easily than cognitive information in the long-term memory" (Gamon and Wirth, 1999, p.52). Moreover, as Bandura (1977) said: the symbols provided these women with "powerful means to deal with their environment" (p.13). Additionally, because the images were desirable to women, they fostered their actions and their acceptance of organic agriculture, natural food processing, and other sustainable practices to finally reach the ultimate goal of

sustainability. Bandura (1977) said that without symbols in teaching, humanity may lose the powerful stimulant of reflective thought.

Implications and Educational Importance

Utilizing the often-neglected “emotional center of the human brain, where information is most easily recalled and stored” (Armstrong, 1977), portrays a new model for teaching and learning, and designing agricultural curriculum. Educators and curriculum developers should consider arousing the right emotions toward the subject matter at the right time using the right techniques. Whether generating agreement or disagreement with the subject matter, or spurring a sense of joy or sadness; learners become immersed in learning and more incited to ask questions. Moreover, expressing the subject matter in the learners’ language and symbols creates sense of engagement, understating, and thinking creatively. Elements of participation, engagement, and relevance could be promoted by the inclusion of elements of emotion, gender, and imagination. The essence of integrated educational programming is the engaging of the affective domain, which deals with emotions and values, with the cognitive domain which deals with intellectual knowledge (McNeil, 2006), a typical approach that has been emphasized by humanists over the years. Humanistic philosophers and educators have stated that emotional qualities in the educational curricula are necessary for reaching complex achievements (McNeil, 2006), which in turn are, the desired impact of agricultural extension and education programs. Although early behaviorists criticized the emotional component of learning (Lefrancios, 1975), there are signs that the new century will see a revival of the humanistic curriculum (McNeil, 2006). Taking this into account, agricultural education programs would have the opportunity to capture the minds and hearts of learners in order to create vivacious learning environments, where learners will not be able to forget.

In international and cross-cultural collaboration, it is necessary to understand the right emotions and symbols that make sense to the targeted group and are most utilized where the collaboration project will take place. This is especially true if the targeted group happens to be women. A closer look to the social, cultural, political powers, and gender domination challenges that surround women in certain environments is definitely needed (Crewe and Harrison, 1998). Educational ethnography is particularly a useful application for drawing the map of the cultural, social, behavioral, political, and gender stumbling blocks and discovering the differences and perceptions in the targeted community. Women, in each rural region in the world, engage distinctive norms and beliefs. Rural women’s education and skills cannot be developed or expressed in isolation from these norms and beliefs. When designing international development programs, defining the culture, language, and beliefs of the targeted group is essential in order to decide when and where to bring in the emotional component and deciding on the appropriate techniques to arouse this emotion. An educator who combines knowledge about the emotional, symbolic, cultural, and gender components of their learners is more likely to select the best setting and most respectable symbols of the targeted culture. Hence seeming more likely to achieve more everlasting outcomes of the educational program. The aroused emotion does not necessarily have to be positive. It could simply boost a criticism toward ongoing practices. Within communities with strong cultural and religious doctrines, such as Afghanistan or the heart of rural Saudi Arabia; culture and religion may be better utilized to produce coherent linkage between the subject matter and the doctrines. This is usually what indigenous people like to hear. Finally, such programs are transferable to other countries in the region that share similar beliefs or traditions. While emotions could be channeled towards natural resources in one country or

channeled towards desertification or land reclamation in another, emotion is a key component for an encouraging and immersing, formal and nonformal learning environment that fosters reflective and creative thoughts. One common factor among agricultural programs around the world is that they already embrace emotion toward sustainability of land, resources, and more importantly people by fostering the means of a better livelihood.

As suggested by Vygotsky (1926/1997) on the essentiality of associating emotion with the taught subject to make it unforgettable, this paper is closed with a poem that may stimulate emotions toward organic agriculture. The poem was read in class on Sustainable Agriculture. The poem implicitly calls for slowing down the misuse of Earth and thinking more of its sustainability. The earth was represented as a woman and a mother in this poem.

“You ask me to plow the ground. Shall I take the knife and tear my
mother’s breast? Then when I die she will not take me to her bosom
to rest. You ask me to dig for stone. Shall I dig under her skin for bone?
Then when I die I cannot enter her body to be born again. You ask me to
cut grass and make hay...But how dare I cut my mother’s hair”

Smohalla (Nez Perce), Circa 1850

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