Factors Affecting the Global Mindedness of Extension Agents: Implications for Building Global Awareness of Extension Agents

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Abstract
Because of the profound effect that globalization has on our society the Cooperative Extension Service of the United States has been challenged to develop programs that help people deal with these changes. The purpose of this study was to determine the level of global mindedness among Extension agents in North Carolina and to identify the factors affecting their global mindedness. This study found that the typical Extension agent from North Carolina has a moderate to high level of global mindedness on this scale. This study found that the level of Extension agents’ global mindedness varies with their age, levels of education, gender and programming area of job responsibility. This study revealed that Extension agents with international experience have a higher level of global mindedness and the agents who have participated in programs such as the Peace Corps and study abroad were more globally minded. This study found a weak positive relationship between the length of time Extension agents have spent abroad and their global mindedness. This study is significant because it describes how to determine the global mindedness of Extension agents and identify the factors affecting their global mindedness.

Keywords: Extension globalization, international experience, global mindedness, professional development
Introduction

Globalization is a force that continues to unify the people of the world and make us more dependent on each other. As this trend continues, educational agencies such as the North Carolina Cooperative Extension Service must adapt to this change. We are all affected by what is now termed the global economy or globalization. According to Lundy, Place, Irani and Telg (2005, p. 49) “Globalization is a force which individuals, organizations, businesses, and governments must meet.” Advances in communication and transportation have created this global marketplace from which we have all benefited (Betancourt, 2000). Etling (2001) says that globalization is a complex idea that means different things to different people and that the term is often used but not well defined or understood. According to Etling (2001) a common thread in the definition of globalization is that it involves “rapid change”. A report by the National Association of State Universities and Land Grant Colleges (NASULGC) says that “globalization of the financial services, manufacturing and agricultural sector is having a profound influence on all facets of American society” (2002, p. 3).

Increasingly, countries are becoming interconnected with the rest of the world. The future of any country rests on its ability to prepare and compete in a world which is moving rapidly toward economic, political and social interdependence. Clients of the United States’ Cooperative Extension Service are affected by globalization just as everyone else is. Traditional customers of Cooperative Extension such as families, rural communities and agriculture are no exception.

Agriculture, a primary customer of Extension, is especially affected by globalization. Patton (1984) tells us that an international dimension is a basic part of an effective Extension program because the economic prosperity of agriculture in any country is directly linked to the world economy. Not only farmers in North Carolina are affected by globalization but other clients are affected as well. Extension can play a part in helping these and other clients in North Carolina gain increased global understanding and prepare for both the ups and downs in our society.

Unless Extension strengthens the international dimensions of its programs, it will not be able to fully serve the changing needs of its local clientele. North Carolina and other state Extension Services have been challenged to develop programs to educate our citizens about the effects of the global society. Ludwig and McGirr (2003) say that the Extension Committee on Organization and Policy (ECOP) identified an international mission for Extension as early as 1984. Numerous articles tell us that because of globalization, international programs are an essential part of the Cooperative Extension mission and that Extension has an obligation to its clients and stakeholders to help them develop global skills that will prepare them to operate in a global society (Ludwig, 1993; Acker & Scanes, 1998; Ludwig 1998; Ludwig 1999; Gallagher 2002; Ludwig 2002; Lundy, Place, Irani, & Telg, 2005; Bates, 2006). It is stated in “Global Engagement” that “Multiculturally adept extension personnel can help serve our increasingly diverse communities and respond to the needs of domestic firms seeking business overseas” (USDA Cooperative State Research Education, and Extension Service, n.d., Overview section).

Through the use of nonformal educational activities Extension has the ability to help clients understand how the breaking down of international barriers will affect them. Once clients understand these effects they are better able to deal with the problems and opportunities created by the global society. If Extension is going to continue to incorporate international and global information and training into Extension programs, Extension personnel need to gain international understanding, knowledge and skills. One way that Extension personnel can gain this knowledge
and skill is through international experiences or training. By working and traveling in another
country, Extension agents can gain a global perspective, gain new technical knowledge, gain new
insight into other cultures. Tritz and Martin (1997) say that study abroad changes a person
forever. A country, its people and its culture all have an effect on people who study abroad.
Study abroad changes perceptions, challenges thoughts and garners a more worldly perspective.
A review of the literature indicates that the Extension agents who have involved in international
programs appreciated their positive experience (Richardson & Woods, 1991; Crago, 1998; Place,

The basic question asked by this study is, to what extent do international experiences
contribute to the employee’s global mindedness? The study measured the impact of international
experience on Extension agent’s global mindedness using the Global Mindedness Scale
developed by Jane Hett in 1993. Hett (1993, p. 143) tells us that "Global Mindedness is a world
view in which one sees oneself as connected to the world community and feels a sense of
responsibility for its members. This commitment is reflected in attitudes, beliefs and behaviors."
The dimensions of global mindedness include Responsibility which is a deep personal concern
for people in all parts of the world; Cultural Pluralism which is an appreciation of the diversity of
all the worlds cultures; Efficacy or a belief that an individuals actions can make a difference;
Global Centrism which is thinking in terms of what is good for the whole world; and
Interconnectedness which is an awareness and appreciation of the inter relatedness of people
around the world. Global mindedness can be measured using the Global Mindedness Scale.
Global Mindedness Scale scores differ significantly based on gender, academic experience,
political views, participation in international activities and international experience (Hett, 1993).

Research shows that global mindedness increased with international experience. Hett
(1993), Bates (1997), Gillian (1995), and Mahon and Crushner (2002) all found that participants
in a study abroad program scored higher on the Global Mindedness Scale. In addition, it was
found by some researchers that the longer the time a person spent abroad the higher that person
scored on the Global Mindedness Scale (Hett, 1993; Gillian, 1995). This study sought to
determine the factors affecting the global mindedness of Extension agents as measured by the
Global Mindedness Scale.

Purpose and Objectives

The purpose of this study was to determine the level of global mindedness among
Extension agents in North Carolina and to identify the factors affecting their global mindedness.
The study sought to fulfill the following objectives:

1. Determine the level of global mindedness of Extension agents employed by the North
   Carolina Cooperative Extension Service.
2. Determine if the level of global mindedness varies with Extension agents’ demographic
   characteristics.
3. Determine if the level of global mindedness of Extension agents varies with their
   international experience.

Methods and Procedure

The research design of the study was descriptive and ex post facto. This was a population
study of all the Extension agents in the North Carolina Cooperative Extension Service. The scale
used to measure the dependent variable of global mindedness was a 5-point Likert-type Global
Mindedness Scale developed by Hett in 1993. Hett’s global mindedness scale has 30 items related to someone’s opinion about globalization and its impacts. Of the items, 21 were positively stated and nine were negatively stated. The 5-point Likert scale ranged from 1 = *Strongly Disagree* to 5 = *Strongly Agree*. The responses to negatively stated items were reversed before adding the scores to get the overall value for the ‘Global Mindedness’ on this scale. The ‘global mindedness’ can be ranged from 30 being very poor global mindedness to 150 being very rich global mindedness on this scale. In addition to the global mindedness scale, the survey instrument also contained sections that recorded demographic data and international experience of respondents. The content validity of the instrument for using it with Extension agents was established by having the instrument reviewed by a panel of experts. Additionally, the instrument was pilot tested with a sample of Extension agents. The reliability alpha of the instrument was found to be .92.

The data were collected using an online survey. The survey was emailed to the 495 Extension agents on September 7, 2007 and two follow up emails were sent. Of the 318 surveys returned, 292 were useable. Nonresponse error was controlled using a comparison of early and late respondents (Lindner, Murphy, & Briers, 2001). An independent t-test was used to determine if early respondents and late respondents differed significantly on Global Mindedness Scale scores. No significant differences were found between the early respondents and late respondents on Global Mindedness Scale scores indicating that the findings can be generalized for the study population. Statistical analysis was performed using SPSS.

**Results**

Of the respondents, 55% were female and 45% were male. A majority of the respondents were white (88%) and were in 40-59 years old age category (62%). Sixty-four percent of the Extension agents had Masters degrees while 6% had doctoral degrees. Only 26% of the Extension agents were Bachelors degree holders. Only 26% of the Extension agents were agricultural Extension agents, 19.3% were 4-H and youth development Extension agents, 18.4% were family and consumer sciences Extension agents, 17.1% were county Extension administrators, 2.2% were natural resource Extension agents, and 1.6% were community development Extension agents.

A large portion (69.5%) of Extension agents in North Carolina have traveled outside of the United States or Canada at some point indicating that they have some level of international experience. Extension agents having no international experience make up 30.5% of the population (Table 1). The highest response for length of time traveled abroad was one to two weeks (24.5%). The portion of the population that has less than one month of international experience is 52.5%. Extension agents that have two or more months of international experience make up 16.7% of the respondents. Extension agents that have more than five months of international experience make up 9.7 % of the respondents while 5.7 % have more than one year of international experience (Table 2).

<table>
<thead>
<tr>
<th>Any International Experience</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>221</td>
<td>69.5</td>
</tr>
<tr>
<td>No</td>
<td>97</td>
<td>30.5</td>
</tr>
</tbody>
</table>
Table 2

Length of International Experience of Respondents

<table>
<thead>
<tr>
<th>Time Spent Abroad</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>97</td>
<td>30.5</td>
</tr>
<tr>
<td>Less than 1 week</td>
<td>33</td>
<td>10.4</td>
</tr>
<tr>
<td>1 to 2 weeks</td>
<td>78</td>
<td>24.5</td>
</tr>
<tr>
<td>3 weeks to 1 month</td>
<td>57</td>
<td>17.9</td>
</tr>
<tr>
<td>2 to 4 months</td>
<td>23</td>
<td>7.2</td>
</tr>
<tr>
<td>5 to 7 months</td>
<td>6</td>
<td>1.9</td>
</tr>
<tr>
<td>8 months to 1 year</td>
<td>6</td>
<td>1.9</td>
</tr>
<tr>
<td>More than 1 year</td>
<td>18</td>
<td>5.7</td>
</tr>
</tbody>
</table>

The Global Mindedness Scale scores for Extension agents in this study ranges from 30 to 150 (the higher the number on the scale the higher the level of global mindedness). The mean Global Mindedness Scale score for the respondents was 108.02. The Global Mindedness Scale scores of the respondents were divided into quartiles, 1st quartile (30 to 60), 2nd quartile (61 to 90), 3rd quartile (91 to 120) and 4th quartile (121 to 150). The majority (74.3%) of the respondents scored in the 3rd quartile and 16.1% of participants scored in the 4th quartile. Only 9.6% of the respondents scored in the 2nd quartile and no respondents scored in the 1st quartile (Table 3).

Table 3

Scores on the Global Mindedness Scale

<table>
<thead>
<tr>
<th>Range of Global Mindedness Scale</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>4th Quartile (121 to 150)</td>
<td>16.1</td>
</tr>
<tr>
<td>3rd Quartile (91 to 120)</td>
<td>74.3</td>
</tr>
<tr>
<td>2nd Quartile (61 to 90)</td>
<td>9.6</td>
</tr>
<tr>
<td>1st Quartile (30 to 60)</td>
<td>0.0</td>
</tr>
</tbody>
</table>

The study compared the level of global mindedness of the participants as indicated by the level of the Global Mindedness Scale scores for various personal and professional characteristics. Those characteristics included gender, age, level of education, ethnic identity, job responsibility, rank, place of birth, and by ability to speak another language besides English.

Independent sample t-test was conducted to determine if there was a statistical difference in the mean score on the Global Mindedness Scale by gender. The results of the t-test are presented in Table 4. The mean Global Mindedness Scale score for males was 104.21 and the mean score for females was 111.28 or 7.07 points higher for the female participants. The t-test indicated that there is a statistically significant difference at the .01 level in Global Mindedness Scale score between males and females.

Table 4

Difference in Level of Global Mindedness Scale Scores by Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>104.21</td>
<td>13.69</td>
<td>-4.51</td>
<td>284</td>
<td>.001</td>
</tr>
<tr>
<td>Female</td>
<td>111.28</td>
<td>12.80</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Pearson’s correlation was used to determine if there is a relationship between score on the Global Mindedness Scale and age (Table 5). The correlation coefficient was .187. According to Davis (1971) and Hopkins (2002) this is a low association. Even though the association is low, the correlation was statistically significant at the .001 level. A Pearson’s correlation was used to examine the relationship between Global Mindedness Scale and level of education (Table 5). The correlation coefficient ($r$ value) was .120. The correlation between Global Mindedness Scale score and levels of education was statistically significant at the .05 level.

Table 5

*Correlation of Global Mindedness Scale Score with Age and Education*

<table>
<thead>
<tr>
<th>Variable</th>
<th>$r$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.187</td>
<td>.001</td>
</tr>
<tr>
<td>Education</td>
<td>.120</td>
<td>.041</td>
</tr>
</tbody>
</table>

The effect of the Extension job responsibility on global mindedness was analyzed by using ANOVA. The Extension job responsibilities include Administration, Agriculture, Community Development, Family & Consumer Science, 4-H and Youth, and Natural Resources. The $F$ (5,284) value was 7.44 and the significance level was .001 (Table 6) indicating that there were statistically significant differences for mean Global Mindedness Scale score by job responsibility.

Table 6

*ANOVA for Level of Global Mindedness Scale Score and Job Responsibility Categories*

<table>
<thead>
<tr>
<th>Variable</th>
<th>$F$</th>
<th>$df$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Responsibility</td>
<td>7.44</td>
<td>5, 284</td>
<td>.001</td>
</tr>
</tbody>
</table>

The post hoc analysis, Tukey’s Honest Significant Difference procedure, was conducted to determine where these differences were. The post hoc analysis revealed that there was a statistically significant difference between agricultural agents and administrators and between agricultural agents and family and consumer science agents. The agricultural Extension agent’s scores were lower than both the administrators and the family and consumer science Extension agents. The community development and the natural resource Extension agents both had high mean scores but there were too few agents in both of these categories to be statistically different.

This study also sought to determine if global mindedness differed based on other demographic characteristics and found that the level of Extension agents’ global mindedness did not vary significantly with their ethnicity, professional rank, place of birth, and language skills.

This study compared the level of global mindedness of the participants as indicated by scores on the Global Mindedness Scale for various levels of international experience and participation in international programs. These included any international experience, time traveled outside of the United States and Canada, places stayed while out of the country, participation in Extension sponsored international program, length of Extension sponsored international program, participation in other international programs, participation in study abroad or the Peace Corps, and participation in international missionary work.
The data in Table 7 indicates that the mean score for the Global Mindedness Scale was 6.39 points higher for those individuals that have any international experience than for those that have no international experience which is statistically significant at the .001 level. Cohen’s d was .048 for effect size of the variable. According to Cohen (1965), this is considered as a medium effect size. This is large enough to consider the difference as practically significant.

Table 7  
Table 7  
**Difference in Global Mindedness Scale Score by International Experience**  
<table>
<thead>
<tr>
<th>Any international Experience</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>109.97</td>
<td>13.44</td>
<td>3.74</td>
<td>290</td>
<td>.001</td>
</tr>
<tr>
<td>No</td>
<td>103.58</td>
<td>13.40</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The second variable that was compared to Global Mindedness Scale score was the length of time that a person has spent abroad. This variable was recorded on a scale from not traveled abroad to having traveled or lived abroad for more than one year. The results of Pearson Correlation listed in Table 8 indicate that there is a low association or weak correlation between time spent abroad and Global Mindedness Scale score. The r value was .124. According to both Davis (1971) and to Hopkins (2002) this r value is in the low association range. The correlation between Global Mindedness Scale score and time spent abroad was statistically significant at the .05 level.

Table 8  
**Correlation of Global Mindedness Scale Score with Time Spent Abroad**  
<table>
<thead>
<tr>
<th>Variable</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Spent Abroad</td>
<td>.124</td>
<td>.035</td>
</tr>
</tbody>
</table>

This study sought to determine if different types of international programs had an impact on Global Mindedness Scale scores. These programs included Extension sponsored program, other international programs (e.g., Rotary, Farmer to Farmer), study abroad or Peace Corps, and international missionary work.

It was found that there was a statistically significant difference in the mean Global Mindedness Scale scores of Extension agents that had participated in study abroad or the Peace Corps and those agents that had some international experience but had not participated in these programs. Independent sample t-test showed that there was a statistically significant difference in these mean scores at the .05 level (Table 9). Cohen’s (1965) classification of effect size was also calculated for agents that had participated in study abroad or the Peace Corps. Cohen’s d was 0.73. According to Cohen (1965), this is considered as a medium effect size. This is large enough to consider the difference as practically significant. There was no significant difference found in mean global mindedness score for Extension agents that had participated in Extension sponsored program, other international programs, or international missionary work.
Table 9

<table>
<thead>
<tr>
<th>Have Any Study Abroad or Peace Corps Experience?</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>117.83</td>
<td>8.62</td>
<td>2.10</td>
<td>203</td>
<td>.037</td>
</tr>
<tr>
<td>No</td>
<td>109.60</td>
<td>13.42</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Conclusions

Two out of three Extension agents (69.5%) in North Carolina are likely to have traveled outside of the United States or Canada. This finding is similar to two other studies (Lundy et al., 2005). The time that most of these Extension agents spent outside of these two countries is limited. About a third of the Extension agents have never traveled outside of the United States or Canada and 83.5% have only traveled outside of the United States or Canada for one month or less. Extension agents that have traveled outside of the United States and Canada for more than two months make up approximately one sixth of the population.

This study found that the average Global Mindedness Scale score for Extension agents in North Carolina was 108.02 out of a possible 150 points. The study found that 16.1% of participants scored in the 4th quartile (121 to 150) and that 74.3% of the respondents scored in the 3rd quartile (91 to 120). This indicates that the typical Extension agent from North Carolina has a moderate to high level of global mindedness on this scale which suggests they have an appreciation for diversity, have a belief that individual actions can make a difference, feel a sense of responsibility to others, think in terms of what is good for the community, and feel connected to others.

This study found that the level of Extension agents’ global mindedness varies with their gender, age, levels of education, and area of job responsibility. Hett (1993) found that global mindedness varied with gender but not with age. Gillian (1995) found that global mindedness varied with both gender and age. The study also found that the level of Extension agents’ global mindedness did not vary with their ethnicity, professional rank, place of birth and language skills. Hett (1993) also found that global mindedness did not vary with ethnicity or language skills.

This study revealed that Extension agents with international experience have a higher level of global mindedness and the Extension agents who have participated in programs such as the Peace Corps and study abroad were more globally minded. This study found a weak positive relationship between the length of time agents have spent abroad and their global mindedness. Previous research has shown that individuals that participate in lengthier international programs or have spent more time abroad score higher on both the Global Mindedness Scale (Gillian, 1995; Hett, 1993). Study abroad and Peace Corps programs tend to be longer than other international programs and this could be the reason that a significant difference was found for those who had this type of international experience.

Implications and Educational Importance

This study is significant because it describes how to determine the global mindedness of Extension agents and identify the factors affecting their global mindedness. These findings can be used to design educational opportunities assisting Extension professionals develop their...
global mindedness. Increased global mindedness will be helpful for Extension agents to have a
global perspective about the needs of their clients and better serve them.

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439


