

Using Technology to Enhance Survival Skills among Latino Migrant Workers

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Socio-Demographic Profile of Latinos

- Population
- Educational attainment
- English proficiency
- Employment
- Occupation
- Industry
- Poverty

Needs of Survival Skills

- Latinos are marginally incorporated into U.S. society and need assistance in various areas of life, including:
 - education, jobs, economic well-being, health, housing, and legal and immigration services
- Limited education attainment, lower rates of English proficiency, and limited knowledge of U.S. institutions and processes
 - *Using technology to improve Latino migrant workers' knowledge about U.S. institutions*
 - *Facilitate their integration into the U.S. society*

The Survival Skills Among Latino Migrants (SSALM) project

- Description of the Project
- Background and Significance
- Research Design and Methods
- Results
- Conclusions

Project Description -- SSALM

- Increase the knowledge of Latino agricultural migrant workers in southwestern Michigan about specific societal institutions and how they function
 - The assumption was that if they understand how American institutions work, they will be able to access government agency services
- Research partners:
 - TVDOS (International Media Exchange) and the Van Buren Intermediate School District

Project Description -- SSALM

- Intervention -- **Éxito en el Norte**
 - Seven videos produced by University Extension at Iowa State University were used. They include information on:
 - Taxes
 - Health care
 - Education
 - Finances
 - Public assistance
 - Immigration, and
 - Legal system
- Research Site – Van Buren County

The Project Objectives -- SSALM

- Develop assessment instruments for each of the videos used
- Assess knowledge enhancement of societal institutions among participants under two conditions:
 - Video alone, and
 - Video plus discussion with summer program personnel
- Compare the level of knowledge enhancement between native and immigrant agricultural migrant workers before and after intervention

Studies on Farmworkers

Article	Key Findings	Comments
Gwyther and Jenkins (1998)	<ul style="list-style-type: none"> • Latino migrant farm workers' children are immunized later than others and show a higher rate of hospitalization; • The migrant health care system reaches only 12% to 15% of the migrant population; • Migrant farm workers find it more difficult to access health care services partly because they are not knowledgeable about the services that are available to them; • They do not know how to navigate the health care system, and language barriers make it difficult to make appointments. 	More knowledge about available services increases the usage rate of those services

Studies on Farmworkers

Article	Key Findings	Comments
Moreno, et al. 1997	<ul style="list-style-type: none"> • Many community members had very little free time; • Worked more than one job; • Jobs tended to be low-paying and labor intensive; • Therefore, workers had "little time or energy for other activities." • Latino immigrants believed that television and radio are effective ways to reach their community, especially those with little free time. 	Use of technology and broadcasting media such as TV can be the best way to inform migrant farm workers about available services

Studies on Farmworkers

Article	Key Findings	Comments
Alecalay 1999 The Salud Para su Corazón program -- Increase awareness of Cardiovascular Disease (CVD) risk factors among the Latino population of the Washington D.C. area	<ul style="list-style-type: none"> • A significant increase on the percentage of people aware of at least three CVD risk factors, and preventative measures; • The percentage of people that could name three ways to prevent heart disease increased from 51% in the pre-test to 70% in the post test. • There was no significant difference in the average number of risk reducing behaviors that respondents engaged in. 	Since there were several ways to receive health information, it is difficult to assess the relative impact of the television ads versus the <i>charlas</i> (discussion groups).

Previous Studies

Article	Key Findings	Comments
Fitzgerald, et al., 2003 Use television as a source of information, focusing in HIV knowledge among female farm workers in northwest Ohio	53% of the 106 respondents received their information on HIV/AIDS from television	Educational television can be used in society as a tool to increase migrant workers' knowledge on a broad range of topics
Alecalay, et al., 1999 Multimedia to promote awareness among Latinos of the risks of cardiovascular disease (CVD)	They found significant increases in awareness among participants of CVD risk factors and ways to prevent heart disease	Migrant farm workers can successfully learn about institutional processes in society through multimedia

Studies on Farmworkers

Article	Key Findings	Comments
Quandt et al. 2004 Effectiveness of a program which screened farm worker households for pesticide contamination	<ul style="list-style-type: none"> • The key to a successful program was to present the information in a way that was easily understandable to a group with diverse educational backgrounds. 	

Research Design and Methods

- A quasi-experimental design
 - Two groups of 35 adults each were randomly assigned to each of the following treatments:
 - Video alone
 - Video plus discussion with summer program personnel
 - A pre-test knowledge assessment
 - A post-test knowledge assessment after 7 weeks of treatment
- Observation visits and qualitative interviews
 - 20 participants in each intervention condition (ten participants in each experimental group)

Quasi-Experimental Design of SSALM

Experimental Group	Pre-Test	(Treatment) →	Post-Test
Video-only group	μ_{10}	Watched videos only	μ_{11}
Video-plus group	μ_{20}	Watched videos + Discussions	μ_{21}

Where:
 μ_{10} is the mean knowledge of institutions for video-only group before the treatment
 μ_{20} is the mean knowledge of institutions for video-plus group before the treatment
 μ_{11} is the mean knowledge of institutions for video-only group after the treatment
 μ_{21} is the mean knowledge of institutions for video-plus group after the treatment

Population under Study (N=37 out of 70)

Characteristics	Frequency	Percent
Experimental Groups		
Video-only	20	54.1
Video + Discussions	17	45.9
Gender		
Male	11	29.7
Female	26	70.3
Age		
18-24	7	18.9
25-29	13	35.1
30-44	11	29.7
45+	6	16.2
Educational Attainment (years)		
Less than 9 years	24	66.7
9-11 years	7	19.4
12 or higher	5	13.9
Marital Status		
Married	11	30.6
Not married	25	69.4
Immigrant Status		
Born in Mexico	33	89.2
U.S. natives	4	10.8

Variables

- Knowledge of institutions
 - Composite knowledge index that summed all correct answers on assessment tests
 - Each correct answer on each question was code 1, and 0 otherwise
- Experimental groups
 - Video only
 - Video plus discussions
- Assessment time
 - Pre-test
 - Post-test
- Foreign-born status
 - Born in Mexico
 - U.S. natives
- Education (years)
- Age (years)
- Gender
 - Male
 - Female
- Marital Status
 - Married
 - Not married

Hypotheses

- H1: Participants will significantly increase their knowledge of societal institutional functions and processes after treatment, i.e.,
 - *Post-test mean > pre-test mean*
- H2: The video-plus group will experience the greatest increase in knowledge of institutional functions and processes, i.e.,
 - *Mean knowledge for video-plus group > mean knowledge for video-only group*
- H3: Native and immigrant migrant workers will experience similar levels of knowledge increases as a result of the interventions, i.e.,
 - *Mean knowledge for foreign-born migrant workers = Mean knowledge for native migrant workers*

Mean Scores on Knowledge by Experimental Groups for the Pre-Test and Post-Test Assessments

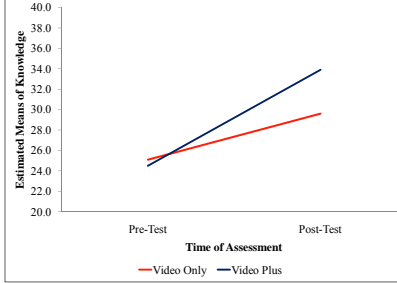
Experimental Groups	Pre-test (n=37)		Post-test (n=37)	
	Mean	Std. Dev.	Mean	Std. Dev.
Video Only	25.1	7.9	29.6	8.3
Video Plus	24.5	7.4	33.9	9.0
Total	24.8	7.6	31.6	8.8

Analysis of Variance Table for Knowledge

Source	Type III SS	df	MS	F
Intercept	58723.36	1	58723.36	649.38***
Experimental group	61.31	1	61.31	.68
Between (error)	3165.04	35	90.43	
Time	889.23	1	889.23	20.56***
Group x time	110.85	1	110.85	2.56
Within (error)	1513.56	35	43.25	

*** p<.001; ** p<.01; * p<.05

Means of Knowledge by Time of Assessment and Experimental Groups (N=37)

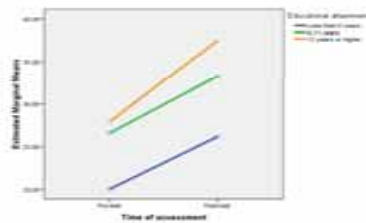


ANCOVA Table for Knowledge, Adjusting for Education

Source	Type III SS	df	MS	F
Intercept	8550.31	1	8550.31	120.58***
Education	754.05	1	754.05	10.63***
Experimental group	52.00	1	52.00	.73
Between (error)	2411.00	34	70.91	
Time	149.60	1	149.60	3.37
Education x time	5.79	1	5.79	.72
Group x time	109.66	1	109.66	.13
Within (error)	1507.77	34	44.35	

*** p<.001; ** p<.01; * p<.05

Estimated Marginal Means of Knowledge by Time of Assessment and Education



ANCOVA Table for Knowledge Adjusting for Education, Controlling for Foreign-Born Status

Source	Type III SS	df	MS	F
Intercept	3935.38	1	3935.38	58.89***
Education	583.90	1	583.90	8.00***
Experimental group	46.31	1	46.31	.63
Foreign born	1.23	1	1.23	.02
Between (error)	2409.76	33	73.02	
Time	118.27	1	118.27	2.61
Education x time	.32	1	.32	.01
Group x time	89.32	1	89.326	1.97
Foreign born x time	13.08	1	13.08	.29
Within (error)	1494.69	33	45.29	

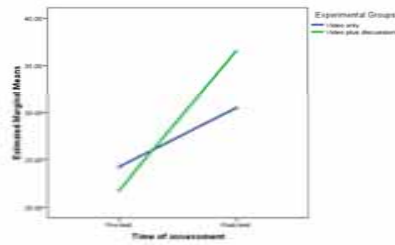
*** p<.001; ** p<.01; * p<.05

ANCOVA Table for Knowledge Adjusting for Education, Controlling for Foreign-Born Status and Gender

Source	Type III SS	df	MS	F
Intercept	3421.18	1	3421.18	44.16***
Education	576.91	1	576.91	7.45**
Experimental group	48.58	1	48.58	.63
Foreign born	.51	1	.51	.01
Gender	5.12	1	5.12	.07
Between (error)	2401.46	31	77.47	
Time	219.43	1	219.43	6.56*
Education x time	3.67	1	3.67	.11
Group x time	2.68.64	1	2.68.64	8.03**
Foreign born x time	64.14	1	64.14	1.92
Gender x time	48.43	1	48.43	1.45
Group x gender x time	438.03	1	438.03	13.09***
Within (error)	1037.59	31	33.47	

*** p<.001; ** p<.01; * p<.05

Adjusted Means of Knowledge by Time by Groups



Results – Qualitative Analyses

- Provided more in-depth analyses of the lives of Michigan Latino migrant farm workers
- Participants appreciated the opportunity to receive and discuss the information on DVDs
- They highlighted the importance of education for them and their children’s lives
- They highlighted the importance of learning English in order to be able to adapt and improve their lives in the U.S. society
- They desired to have more information on their rights and how to secure them

Results – Qualitative Analyses

- There were greater variations among the participants;
 - Some lived in camps
 - Others lived dilapidated homes, while
 - Others lived in nice homes
 - Some have settled in the area while others are still on the move
 - They also differ by type of jobs they held and previous live experiences
 - They all indicated stronger social ties with their children and loved ones and a willingness to make sacrifice for them

Results – Qualitative Analyses

- Family
 - Participants were mostly married and living with their children and often with extended family members
- Employment
 - Nursing homes
 - Blueberry fields
 - Custodian
 - Picking strawberries and grapes
 - Apple packing plant
 - Cook at a restaurant
 - Work in fields picking peaches, apples, blueberries, and asparagus
 - Many not working in winter

Employment

“We have worked in the field all the time. We harvest asparagus, peaches, apples and trimming trees in the snow during the winter. We also work harvesting blueberries, blackberries. During harvest season, there is work everywhere, but when the apple season comes to an end, we have to wait around for the farmers to start trimming apple trees and there’s no work. Sometimes we last three, four months with no work in the winter. Mostly, we don’t have any work in the winter. Right now, when we are working we need to save money for the winter because we stay in Michigan.”

Results – Qualitative Analyses

- Settlement in Michigan – the length of residence in Michigan varies
 - Many moved from Mexico to Chicago before they settle in Michigan
 - Others first lived in Texas before coming to Michigan
 - Another participant moved from Washington DC and then came to Michigan
 - Others came directly from Mexico
 - Another moved from Mexico to North Carolina to Texas, and then to Michigan
 - Another moved from Mexico to Chicago, to Massachusetts, then to Michigan

Results – Taxes

- *“The video explained how undocumented people that do not have a social security number can pay taxes, by getting a TIN. Also, that they should not claim dependents who are not living with them.”*
- *“The taxes video talks about your taxes rights—if they have to return money to you, or if you made more than the limits and that you have to pay.”*
- *“That one can do income taxes too with the ID, or whatever they call it. I don’t know. That one can get a number with the IRS and that everyone can do their income tax, legals and illegals can do it.”*

Results – Taxes

- *“We have always paid taxes, since we arrived to the USA with no documents, but there’s people that try to add dependents they don’t have, we have seen it in Chicago. We learned about taxes from the radio. My husband is well informed I depend on him for that, I do the work, but he checks on things. That’s why I told him to get the videos because he likes to be informed.”*

Results – Health Care

- *“That one can have health insurance through your job or through Medicaid or something like that. But one needs to fill out an application to see if one qualifies or not.”*
- *“The video talked about Medicare. How to go ask for help, how to get emergency insurance for children and about telling the truth and not lie.”*

Results – Health Care

- *“The little bit I saw, the video said you can get help with electricity, rent and gas. It also said that no one should be denied care if you go to the hospital.”*
- *“For children who don’t have insurance and all that, they can help in that situation but that it has to be an emergency.”*

Results – Health Care

- *“About health insurance of things one doesn’t know, it was interesting, for example, if one has small children, even when they were not born in this country, one can seek help so that can have health insurance.”*
- *“The video about Medicare was very interesting, talking about undocumented people who don’t have insurance and the video said that one can sometimes have Medicare benefits and all that and one doesn’t know or doesn’t ask for fear of being reported to immigration.”*
- *“That they may not offer medical insurance at work.”*
- *“That children should not be interpreters.”*

Results – Education

- *“This video says that we have to be more involved with our children and all that is true. Sometimes, one doesn’t do it because of work. The video talked about all the assistance available at school. It is difficult, but one must try. This way, the children also get motivated, even more when they get recognition prizes like student of the month. Sometimes, when it is your first child, one doesn’t know what to do, but one learns.”*

Results – Education

- *“There are many things that one doesn’t know. Like, when I saw the video it was talking about school, that one has to call and all that. Also, it was saying that kids can’t miss more than 10 consecutive days.”*
- *“I thought it was good, because I have children that were not born here and they can go to school and all that. I found that to be very good.”*

Results – Public Assistance

- *“That one has to qualify or something like that. After filling an application to see if you qualify and they can give you assistance.”*
- *“It was about what is needed in order to get your rent paid. You need to have a job, but one where you don’t make a lot. You also need to say the truth about how much you make and all that”.*
- *“About the benefits that one asks at welfare, the benefits one can receive. Also about if one receives cash assistance that it might affect being able to get residency. That is something I didn’t know.”*

Results – Public Assistance

- *“What I said, about rent and gas. Things that one can ask for help for.”*
- *“Also about food stamps... because one must know how to submit an application, even with no documents. I learned how to apply for aid and where to get help.”*

Results – Immigration

- *“Well, it only explained about the income tax and all that. But this is mostly for undocumented people, but for us, it didn’t say anything. I mean for those who have documents it didn’t say anything.”*
- *“I am not going to criticize anything. Everything that was said was right. What is said was fine, but like I said, I didn’t get anything for me. I would have liked that the focus was more in the case of people with documents.”*

Results – Legal System

- *“I think what people need, many people need, is to know about the police because there is a lot of discrimination, many people get caught and they don’t know how to react when they get caught”.*
- *“I would like to know more probably about the laws and everything or the rights.”*

Results – Legal System

- *“I think that right now what people care about is to know about the IDs and the drivers licenses, because they are not issuing IDs. Like us, that we have them now but when they expire this season they won’t give them to us. Right now, we have the privilege to have them. There are many people that don’t have IDs and they have many difficulties cashing checks. Right now, this lady didn’t want to cash his check today because he had no ID, and so it is very difficult. This is one thing that worries people.”*

Results – English Language

- Many participants indicated that the DVD should have English lessons
- *“Information in the DVD uses language that people would not understand. For example, information on how to fill taxes, apply for assistance, apply for identification number, and apply for visa was confusing”*

Results – English Language

- English as a second language
 - Interaction with the police
 - Interaction with the school systems
 - How to overcome discrimination
 - Special education for children
 - Health hazards such as pesticide exposures
 - Farm worker legal services
 - Pre-kindergarten education services
 - Parenting
 - Differences between states in their laws

Conclusions

- Significance difference in the scores on knowledge was found for time (pre-test vs. post-test), supporting hypothesis 1.
- Contrary to hypothesis 2, no significance difference in the scores on knowledge by experimental groups (video only v. video plus)

Conclusions

- Significant difference in the scores on knowledge by education was found and once education was adjusted, the significance difference in knowledge for time disappeared.
- Consistent with hypothesis 3, no significant difference in the scores on knowledge between foreign-born and native-born migrant workers was found.

Conclusions

- After controlling for gender, a significant difference in the scores on knowledge was found for time, education, and for the interactions between experimental group and time and that between experimental group, gender, and time
- The information on taxes, health care, education, and public assistance were very informative to participants

Conclusions

- *“The videos were useful and helpful. They gave me information that I didn’t know”.*
- *“The videos are good because they explain very well all one should do or how life is here. If you come to the North not knowing how things are, we are going to tell you all that, and then the video starts talking about how to ask for help and all that.”*
- *“I thought all the information was good, all of it. Sometimes one doesn’t know about some topic and with the video, one begins to know.”*

Conclusions

- Participants expressed the need for more general information on the rights that immigrants are entitled to and how to get identification cards and drivers licenses
- Participants also expressed the need to have English lessons

Conclusions

- Communities benefit when migrant workers increase the knowledge of the workings of U.S. institutions and are better informed about the laws, taxes, immigration, employment, education, and health services.
 - Not only communities benefit from the work of migrants, but they also do when migrants are knowledgeable and are fully integrated.

Conclusions

- Our findings inform us about the need to continue educating migrant workers about the U.S. institutions and processes using technology media. This would help migrants better integrate into U.S. society, conquer their fear, reduce their isolation, and have better access to existing public and private services.

Future Research

- Should be conducted in the off-season when workers are not so busy and there is more time for viewing the videos and discussing them.
- Should involve more than two time assessments (pre-test, post-test) to assess whether participants retained the knowledge gain over time