ABSTRACT

One of the goals of the project titled Outreach and Assistance for Socially Disadvantage Farmers and Ranchers Training, and Technical Assistance on Grant Readiness and Grantsmanship in Puerto Rico was to deliver nonformal education in Agribusiness management. The course focus on delivering accounting records, financial ratios, marketing, and developing a business and marketing plan. The target audience were socially disadvantaged farmers and ranchers so they can have up-to-date accounting information, business, and marketing plans so they can write grants and apply for USDA funds and state funds. To achieve objectives, we proposed to offer 18 hours of training in the following topics: Business Plan, Agricultural Marketing, Marketing Plan, Income Statement, Cash Flow, Inventory, Balance Sheet, Financial Score Card, Introduction to Microsoft Excel and the Accounting and Financial System for Farms in Excel. Participant’s profile, pre-post test, and success stories were performed and to analyze participant’s knowledge and evaluate project deliverables to evaluate if workshops and activities had a positive impact for their farms and agribusiness. Results showed that participants gain knowledge and many of them use their knowledge to write plans and apply for federal and state funding.

INTRODUCTION

This project proposed to provided 18 hours education on agribusiness management to enable them to develop marketing and accounting skills. As part of educational activities, we included topics on how to prepare a Business Plan and Marketing Plan for an agribusiness. In addition, we deliver education about accounting records and financial ratios were also presented so that the participants can evaluate the data of their operation that will allow them to increase the operational financial and evaluate the operation’s financial situation. One of the objectives was to provide planning, communication and administration tools to farmers and ranchers to make better decisions, plan their agribusiness and make rational decisions.

NON FORMAL EDUCATION SEMINARS AND WORKSHOPS

Distance learning methodologies were used to delivered the workshops. Workshop topics are:

- Business Plan
- Agricultural Marketing
- Marketing Plan
- Income Statement
- Cash Flow
- Inventory
- Balance Sheet
- Financial Score Card
- Introduction to Microsoft Excel
- Accounting and Financial System for Farms in Excel

METHODS

The process to gather the information was done through online questionnaires sent by email to project participants. Educational activities consisted mostly of online lectures and workshops. A formal assessment of educational activities was conducted. Participants were ask about their knowledge after taking the courses and a questionnaire about the success stories was developed. A Likert scale (1 to 5) was used to measure perception of knowledge after taking the workshops. Excel was used to summarize the profile data, quizzes and pre and post tests. The participants’ post-test scores were compared to their pre-test scores, in order to evaluate the increasing participants’ knowledge of the training content. Participants were asked on a Likert scale-type question (Very Knowledgeable to No knowledge) about attributes which included topics about financial risk, agricultural marketing, and legal risk. Finally, the success stories allowed the analysis of the participants’ gained skills providing insight into the participants operation progress. In addition we included a question on future recommendations.

RESULTS

The workshops were offered online by Zoom due to the social distancing due to COVID-19 which made it accessible to participant from different municipalities across the island. All educational materials were uploaded to the following website: [2]. In addition, all videos were uploaded to Doctor Gregory’s youtube channel. Participants were asked on a Likert scale-type question (Very Knowledgeable to No knowledge). Table 1 shows results that participants increased their knowledge about Business and Marketing Plan to no knowledge about them. After taking workshops none had little to no knowledge. Pre-test had similar results for all topics included: balance sheet, marketing, marketing plan, and business plan were participants increased their knowledge.

Table 1: Post results for selected topics

| Basic records, purchase and use of input          | After | 6 | 11 | 26 | 15 | 6 |
| Balance Sheet                              | After | 9 | 5 | 29 | 15 | 6 |
| Inventory                                  | After | 7 | 9 | 18 | 22 | 8 |
| Marketing                                   | After | 6 | 16 | 23 | 17 | 2 |
| Business Plan                              | After | 5 | 11 | 22 | 23 | 2 |
| Marketing Plan                             | After | 7 | 11 | 35 | 9 | 1 |

As part of the educational activities, we offered a workshop on how to use the Accounting and Financial System in Excel. The system will allow them to create their accounting records and estimate their financial ratios. Participants were asked if they will use or are using the Accounting and Financial System in Excel (Figure 1). Results shows that only 34.8% are using it but 52.2 have plans to use it.

Figure 1. Participants use of Accounting and Financial System in Excel.

个项目目标的项目称为 Outreach and Assistance for Socially Disadvantage Farmers and Ranchers Training, and Technical Assistance on Grant Readiness and Grantsmanship in Puerto Rico. 该项目的课程重点是提供会计记录、财务比率、营销和制定业务和营销计划。目标受众是社会经济地位低下的农民和牧场主，他们可以拥有最新的会计信息、商业和营销计划，以便撰写的书籍和申请USDA基金和州基金。为了实现目标，我们提议提供18小时的培训，包括以下主题：商业计划、农业营销、营销计划、收入声明、现金流量、库存、资产负债表、财务分数卡、Microsoft Excel的介绍和农业和财务系统。参与者进行了个人资料、前后测试和成功故事的分析，并评估项目的可交付成果以评估这些工作坊和活动是否对他们的农场和农业经济发展持积极影响。结果表明，参与者获得了知识，并且其中许多人将其知识用于书写计划和申请联邦和州基金。

引言

该项目提议提供18小时的农业商业管理教育，以使他们能够开发营销和会计技能。作为教育活动的一部分，我们包括了如何准备商业计划和营销计划的农业商业。此外，我们还提供有关会计记录和财务比率的教育，以便参与者可以评估他们的运营数据，从而允许他们增加运营财务和评估运营的财务状况。其中一个目标是提供规划、沟通和管理工具给农民和牧场主，使他们做出更好的决策，规划他们的农业商业并做出理性的决定。

非正规教育研讨会和工作坊

非正式教育方法被用于交付研讨会。研讨会的主题包括：

- 商业计划
- 农业营销
- 营销计划
- 收入声明
- 现金流量
- 存货
- 平衡表
- 财务分数卡
- 介绍Microsoft Excel
- 农业和财务系统

方法

收集信息的过程是通过电子邮件发送在线问卷给项目参与者。教育活动主要包括在线讲座和研讨会。形式上的评估是通过参与者完成的课程。参与者被问及在完成课程后他们的知识，并设计了一个Likert量表（非常了解到不了解）来衡量他们对财务风险、农业营销和法律风险的理解。最后，成功故事分析了参与者获得的知识，提供了一窥参与者经营过程的进步。在补充中，我们问及对未来推荐的问卷。

结果

研讨会和工作坊均以Zoom在线提供，以应对COVID-19带来的社交距离，使参与者能够从不同市政区域的岛屿访问。所有教育资料均上传至以下网站：[2]。此外，所有视频均上传至Gregory博士的YouTube频道。参与者被问及Likert量表（非常了解到不了解）。表1显示结果，参与者在商业和营销计划方面的知识从没有到没有知识。在参加研讨会后，没有人了解非常少的知识。预测试具有相似的结果，所有主题包括：资产负债表、营销、营销计划和业务计划都是参与者提高了他们的知识。

表1：筛选主题的后结果

<table>
<thead>
<tr>
<th>基本记录，采购和使用输入</th>
<th>After</th>
<th>6</th>
<th>11</th>
<th>26</th>
<th>15</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>平衡表</td>
<td>After</td>
<td>9</td>
<td>5</td>
<td>29</td>
<td>15</td>
<td>6</td>
</tr>
<tr>
<td>库存</td>
<td>After</td>
<td>7</td>
<td>9</td>
<td>18</td>
<td>22</td>
<td>8</td>
</tr>
<tr>
<td>营销</td>
<td>After</td>
<td>6</td>
<td>16</td>
<td>23</td>
<td>17</td>
<td>2</td>
</tr>
<tr>
<td>业务计划</td>
<td>After</td>
<td>5</td>
<td>11</td>
<td>22</td>
<td>23</td>
<td>2</td>
</tr>
<tr>
<td>营销计划</td>
<td>After</td>
<td>7</td>
<td>11</td>
<td>35</td>
<td>9</td>
<td>1</td>
</tr>
</tbody>
</table>

作为教育活动的一部分，我们提供了一个关于如何使用Microsoft Excel的研讨会。系统将允许他们创建他们的会计记录并估算他们的财务比率。参与者被问及他们是否会使用或者正在使用Microsoft Excel的会计和财务系统（图1）。结果显示，只有34.8%的人在使用，但52.2%的人计划使用。

图1. 使用Microsoft Excel的会计和财务系统。

结论

在该项目中，我们提供了18小时的非正规教育，以在农业商业管理方面为农民和牧场主提供服务。由于社交距离受到的阻碍，这些研讨会通过Zoom平台提供。目标的课程是帮助农民和牧场主改善他们的管理、财务和营销技能。一个设计用来测量如果参与者在这些主题方面有知识，那么他们的成功故事结果表明，总的来说，参与者在完成课程后获得了了解所有主题的能力，但他们在参加这些研讨会后对这些主题的结果提供了证据，表明非正式教育和外部项目对帮助农民和牧场主有所助益，使他们能够完成更理性决策，从而改善农业商业收入。这些研讨会促进了在社交媒体、群组聊天、扩展代理、电子邮件等参与活动的参与者之间进行交流。在输入后，每个参与者参加了参与者证书。在最后，有一个认证证书与所有交流联系。

项目团队和表彰

宣传人员分别为：Alexandra Gregory和Myrna Comas，他们来自农业经济和农村社会学。

研究生助理：Joe K. Lucane

Professor Roberto Rigau, Ed.D. candidate and the project coordinator Glenda Velázquez, Ed.D. candidate

奖项

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