

Manual for Hands-On Gardening Project

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CHAPTER I

INTRODUCTION

Background and Justification

Childhood obesity is an epidemic in the United States. Over the past thirty years the prevalence of obesity has increased significantly in U.S. children (Ogden, Carroll, Lamb & Flegal, 2010). Obesity related risk factors and diseases have also increased alarmingly and are being identified even in young children. Even recently, the occurrence of obesity among children aged 6-11 years increased from 6.5% in 2007 to 19.6 % in 2008 (Ogden, et al. 2010). The obesity issue may also be further defined by ethnicity as shown by data released from the Centers for Disease Control and Prevention (CDC) which revealed that 26.8 % of Mexican-American boys are obese compared to 16.7% of non-Hispanic white boys (Ogden & Carroll, 2010).

To help reverse the trend of obesity among Hispanic elementary children, the Marilyn Magaram Center for Food Science, Nutrition and Dietetics at California State University, Northridge (CSUN), was awarded a grant from the U.S. Department of Housing and Urban Development (HUD). This grant provides funding to address issues relating to children's physical fitness and eating behaviors, and to also encourage parent involvement in nutrition education. Part of the children's nutrition education program is a hands-on gardening program. Studies show that school gardens can change attitudes towards fruits and vegetables and increase the willingness of children to taste different types of produce (Ratcliff et al, 2009). Creating a curriculum manual for the "Gardening Program" activities for first and second graders will help create a standardized approach to teaching gardening to children to assist them in developing healthy eating habits and a healthy lifestyle early in their lives. The opportunities provided by this program will also improve the quality of education in the elementary schools targeted by the

grant (F.Y. 2010-2015 HUD Strategic Plan 2010-2015).

In order to provide a garden area to teach the children, grant money was used to obtain a revolutionary gardening system called a *Woolly Pocket* which uses recycled plastic bottles to create a hanging garden area (Woolly Pocket Garden Company, 2011). The *Woolly Pockets* are space effective and are easy to install and to move. This allows the schools to be flexible in moving the pockets to fulfill their needs. A series of eight lesson plans will be developed based on this gardening approach. The focus of these lesson plans will be the planting of the seeds or seedlings, care of the plants, harvesting of the edible portion of the plants, and tasting of the harvest. This will teach the children the joy of gardening and provide an inspiration to grow their own vegetables and fruits at home. In addition, the children will be exposed to different vegetables which they can grow and they will be able to harvest and taste them. This experience will create better eating habits for the children and their families. The creation of the manual for the hands-on gardening project will allow the teachers to continue educating the children when the grant is completed.

Statement of Purpose

The purpose of this project is to create a curriculum that will provide a direct experience for children growing their own healthy foods and to develop their understanding and knowledge of such foods.

Objectives

- 1) To create a curriculum manual for first and second graders relating to hands-on activities in a garden.
- 2) To help children understand the importance of taking care of a garden.

- 3) To have children be able to identify vegetables and develop their willingness to taste different types

Assumptions

The following assumptions were made for the purpose of the project:

- 1) The children understand English.
- 2) The elementary schools that are included in the grant have a strong interest in incorporating the school garden curriculum and are supportive of the project.
- 3) A support staff is available to keep the garden alive, (i.e. by watering and feeding).
- 4) Access to the garden is available when needed.
- 5) Sufficient funding is available from the grant to provide materials, including seeds, plants, fertilizer and other necessary items.
- 6) Support from the CSUN faculty and volunteers is available to successfully implement the lesson plans.
- 7) The Woolly Pockets will function as necessary.
- 8) The Woolly Pocket garden project will be interesting and beneficial to children so they will enjoy the process of gardening and increase their fruit and vegetable consumption.

Limitations

The limitations of this project are the following:

- 1) The hands-on garden project has no direct assessment criteria to evaluate the effectiveness of achieving the objectives laid out in this project.
- 2) There is no guarantee that the hands-on gardening program will be sustainable by the schools after the grant is completed.

- 3) The grant does not provide for a follow-up survey in the years to come.
- 4) The lesson plan / manual will be geared toward the Woolly Pockets and would need to be altered when used in conventional gardens.
- 5) Without using lesson time from subjects, teachers will have time constraints in teaching the hands-on garden program during the regular school day.

References

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