

EVALUATING EDUCATIONAL EFFECTIVENESS OF *LEARNING BY DOING* IN PUBLIC SCHOOLING IN ANTIOQUIA

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ABSTRACT

The purpose of this 2014 Fulbright grant funded project is to explore, examine, understand and analyze the structure, scope and extent of implementation of the ALIANZA MODEL (Learning by Doing) in five municipalities, southwest of Medellin in Colombia in order to propose an Evaluation Framework to measure its educational effectiveness in the region. The ALIANZA MODEL aims at the improvement of quality of education for students attending public schools in grades K - 11 and it is intended to close the academic achievement gap within the region. The specific objectives of the ALIANZA MODEL were identified as follows: 1) Facilitate and enhance learning in mathematics, language arts and investigation as pedagogical strategy; 2) Contribute to the improvement of the processes of educational management and cultural transformation of public schools; 3) Create inter-municipal networks to strengthen actions to improve quality and equity of education in the region; 4) Strengthen the confidence of both private and public sectors in the implementation of public education policies; and 5) Strengthen Professional Development Models of teachers so that they have a positive and effective impact on students learning. A first qualitative research study is currently underway and will be disseminated during Fall 2014. Additionally a second quantitative evaluation study will be conducted during Fall 2014 and disseminated during Spring 2015.

Key Words: Learning by Doing; Constructivism; Experiential Learning; Evaluation Research; Educational Effectiveness.

INTRODUCTION

The ALIANZA MODEL project started its first phase of implementation in late 2003 in Antioquia, Colombia through entities such as: Fundación Empresarios por la Educación, Fundación Proantioquia, Comfama and Centro de Ciencia y Tecnología de Antioquia-CTA. The project has been implemented since 2004 and at the moment the model is executed in eleven municipalities with resources from Fraternidad Medellín, Fundación Dividendo por Colombia, Fundación Bancolombia and the entities referred previously. The ALIANZA MODEL was created to reduce the problems regarding deficiencies in student learning and academic achievement as proposed by the educational system, where the current methodology is learning by repetition which has proven not to be so efficient in the knowledge appropriation of students while the new methodology proposed by the ALIANZA MODEL is by **learning by doing** (Caine, Caine & McClintic, 2002; English, 2013; Poikela & Poikela, 1997). The national standardized tests “Pruebas Saber” and the national tests "Olimpiadas del Conocimiento” conducted in Colombia for students of elementary schools and grades 5 through 9 in the areas of knowledge of language, mathematics, and science have not shown significant growth in student learning during the last few years. Therefore, the purpose of the Fulbright grant funded project is to 1) Design an evaluation system for assessing the base line data and the final evaluation of the model; 2) Redefine a support strategy in the classroom through AULA-TALLER coordinated with Teacher Professional Development through JORNADAS PEDAGOGICAS; 3) A restructuring plan of the model according to trends and international standards; 4) Methodology for the development of content presented in math and language workshops for teachers and students; 5) Identification of Model Indicators to measure the impact and management of outcome measures; and 6) Conceptualization and presentation of an evaluation framework and system designed for the baseline data and final evaluation that would be applied to educational institutions implementing the ALIANZA MODEL.

THEORETICAL MODEL AND RESEARCH METHODOLOGY



MODELO ALIANZA-FULBRIGHT

DISEÑO METODOLOGICO

RECOLECCION Y ANALISIS DE DATOS

RESULTADOS Y HALLAZGOS INICIALES

PROPUESTA DE EVALUACION PARA ALIANZA



Theoretical Model

The design for evaluation research and student-centered assessment is based on the premises and operational principles of *Understanding by Design* from Wiggins and McTighe (1993, 2007, 2012, 2013), and the multi-layer institutional approach to evaluation research originates in the field of Sociology and Public Education Policy. In the context of institutional assessment research, the framework utilized for this study is an adaptation of the National University (2014) *Assessment Guide for the School of Education*. This framework positions the collection of data for candidate measures, programmatic measures, and institutional measures in the context of looping back to original institutional learning outcomes, program learning outcomes, and course learning outcomes. The process of using assessment data (Marsh, 2007) to loop back into program design, program outcomes, course outcomes and candidate competencies is imported to the K-11 public school environment south of Medellin. This framework capitalizes on the notion that institutional assessment and evaluation is most effective when triangulated through the use of multiple direct and indirect measures at various levels of implementation. For our research study, the levels of implementation are the classroom level (Aula) (Stecker , Fuchs & Fuchs, 2005); the school site (Institucion) and the municipality (Municipio). The composite of measures respond to context-based measures in the classroom, semi-contextualized measures at school site level derived from the Center of Science and Technology of Antioquia; and decontextualized measures provided at national level to all students in Colombia across direct and indirect measures for student academic achievement.

Data Collection

Data will has been collected from four separate sources of information as follows: 1) Formal Work Meetings with Pedagogical Strategy Groups (Mathematics, Language and Inquiry Research); 2) Document Analysis of Pedagogical Strategy Groups by Strategy, by Impact Analysis Reports, by Curricular Materials and by Initiative Presentations; 3) Structured Field-Based Visits (Aula-Taller, Jornadas Pedagogicas, Grupos de Investigacion, Grupos de Docentes Directivos, Grupos de Secretarios de Educacion, Visita a SER MAS MAESTRO, Visita a LIDERES DE SIGLO XXI, Visita a Junta de Aliados); and 4) Focus Groups and Semi-Structured Interviews (Students, Teachers, Instructional Leaders, Secretaries of Education at municipal level, Facilitators Ser Mas Maestro and Lideres Siglo XXI).

Data Analysis

As a result of a preliminary review of the data, a proposed Evaluation Framework for ALIANZA MODEL was proposed at the classroom level, at the school site level and at the municipal level for educational public policy (Messick, 1989; Popham, 1999; The proposed Evaluation Framework was shared with the Center of Science and Technology on March 5 – 6, 2014. After sharing the proposed Evaluation Framework to Center of Science and Technology, all review

and feedback was taken into consideration in order to improve such framework during for the following Phase of research.

Currently all data from sources 1 – 4 is being analyzed and that includes a qualitative analysis (Frank, 2011; Grudens-Schuck, Allen & Larson, 2004; Hotz-Clause & Jost, 1995; Krueger & Casey, 2009) of Student Focus Groups (1), Teacher Focus Groups (1), Instructional Leaders Focus Group (1), Teachers and Secretaries of Education Semi-Structured Interviews (2), Work groups meetings (3), and all other document review data.

Conclusion

Once all qualitative data has been analyzed, preliminary findings will be discussed and disseminated through a scholarly peer-reviewed publication. This will produce a first qualitative research study responding to the need of understanding ALIANZA MODEL by key actors, by key institutional levels of implementatoin and by key áreas of evaluation as proposed by the Fulbright Evaluation Framework. A second quantitative research study will be conducted once the Evaluation Framework has been implemented with the creation of new evaluative measures and data has been collected over a two-year process in five municipalities southwest of Medellin, Colombia.

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MARCO PARA EVALUACION DE EFECTIVIDAD DE ALIANZA-FULBRIGHT (I)

DRA. CLARA AMADOR-LANKSTER, FULBRIGHT SENIOR SPECIALIST, March 5, 2014

