

Inclusive Project Design Orientation and Educational Achievements of Orphaned Primary School Learners: Perspectives of Care Givers in Kenya

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Abstract:- Available research shows that orphans have poor educational outcomes compared to non orphaned children. Learners presumed to have been orphaned by AIDS experience stigma and discrimination within the families, communities and schools. Socially excluded learners are likely to have problems with school attendance, participation in co-curricular activities, home work, and school discipline and are also more likely to altogether drop out of school; thereby generally impacting negatively on their overall educational achievements. On the other hand, available research suggests that inclusive approaches and interventions with such children improve educational outcomes for such children. Orphan support projects are designed, among other reasons to ensure improved educational outcomes for orphans and vulnerable children, and also to mitigate the negative effects of social exclusion. In view of the increasing number of orphaned learners in Kenya due to AIDS related mortality, there is increased call for orphan support projects to ensure the social exclusion of such learners. Whereas care givers are daily responsible for the welfare of orphaned children under their care, little has been done to determine the perspectives of care givers on the influence of orphan support projects the educational achievements of orphaned learners. The purpose of the study was to determine the perspectives of care givers on the influence of inclusive project design orientation on educational achievements of orphaned learners orphaned primary school learners enrolled in community based orphan support projects in Homa Bay County, Kenya. The cross-sectional study was grounded on pragmatism. A total of 363 care givers participated in the study. Care Givers' Questionnaire was used to collect data. To ensure validity and reliability of the research instruments, pilot testing was conducted in a community based orphan support project in the neighboring Kisumu County. Cronbach alpha at $\alpha = 0.05$ level of significance was used to compute the reliability coefficient of the pre-test instruments. Inferentially simple and multiple linear regression, and Pearson Correlation Coefficient models were used to determine the extent to which inclusive project design orientation influence orphaned learners' educational achievements, from the perspectives of the care givers. Tests of statistical assumptions were carried out before data analysis to avoid invalidation of statistical analysis. The hypothesis was tested at $\alpha = 0.05$ level of significance.

The null hypothesis (H_0 : Inclusive Design Orientation does not significantly influence orphaned learners' educational achievements in Homa Bay County) was rejected since ($F(10,353) = 23.457$, P -Value < 0.05). From the results, it was concluded that at least one of the explanatory variables is significantly related to the orphaned learners' educational achievements. From the perspectives of the care givers, Inclusive Design Orientation had positive influence on the Orphaned Learners' Educational Achievements. According to the care givers, there was enough statistical evidence to show that Inclusive Design Orientation influenced their educational achievements. It is recommended that orphan support projects should integrate and intensify the use of inclusive project design orientation to ensure sustainable educational achievements for orphaned learners.

I. INTRODUCTION

It is estimated that globally about 145 million children below 18 years have lost one or both parents (UNICEF, 2008b; World Bank, 2002). Out of this, 15 million school age children have been orphaned due to AIDS, with 11.6 million of these children orphaned in sub-Saharan Africa alone orphaned due to AIDS. Kenya has higher number of orphans, estimated at 2.5 million, with Homa Bay County having the highest number of orphans, due to high incidences of adult AIDS related mortality (UNICEF, 2008b). Available research suggests that orphaned learners have poor educational outcomes compared to non orphaned learners. Apart from the emotional and psychological effects that losing a parent can have on learners, there is clear evidence that orphaned learners do not attend school regularly, and are dropping out of school at higher rate than non orphaned children. Current knowledge suggests that when a parent dies, the amount of resources available for education decreases, as the cost of education becomes unaffordable, further compromising the rights of the orphaned learners to education (UNICEF, 2008b; World Bank, 2002).

For learners whose parents have died as result of AIDS, the stigma and discrimination within the families, communities and schools may further exacerbate poor educational outcomes for such learners, manifested in irregular school attendance, limited participation in co-curricular activities, reduced motivation for home work, and

may contribute to discipline referrals and grade repetition, or might out rightly lead to such learners dropping out school (UNICEF, 2008b; World Bank, 2002). Available evidence suggest that school attendance, participation in co-curricular activities, school discipline, home work completion and grade progression are critical indicators of educational achievements, and that these indicators positively influence performance in examinations (UNICEF, 2008b; World Bank, 2002).

To show commitments and support to the education of orphans, Kenya signed and supported the Declaration of the Right of the Child to Education, and has prioritized the education of orphaned learners, by investing financial and technical support towards the design and implementation of orphan support projects (UNICEF, 2008b; World Bank, 2002). It has been argued that the success of orphan support projects depends on the extent to which they appreciate, empower, include and engage orphaned learners and the extent to which they promote the education of orphaned learners. The psychological and physical trauma following parental death, may affect the self esteem of these orphaned learners. These learners are likely to feel unappreciated, disempowered, excluded and disengaged in the learning process. As a result, for the orphan support projects to function effectively and to deliver services to the orphaned learners, the projects have to appreciate the challenges and diversity of orphaned learners, and must ensure that their policies and services are inclusive, empowering and should promote the engagement of the orphaned learners in the learning process (UNICEF, 2008b; World Bank, 2002).

Inclusive project design orientation, conceptualised as project design approach that appreciates, recognises and positively affirms orphaned learners (Shier, 2001), is believed to have beneficial influence on a wide range of educational outcomes amongst orphaned learners (UNICEF, 2008b). Orphaned learners in Kenya do not attend school regularly, compared to non orphaned pupils in the country (Evans and Miguel, 2007), since the death of a parent or parents adversely affects the support that these children could have received from their parents. The stigmatization and discrimination of orphaned learners, and the poor educational achievements among orphaned learners in Kenya led to calls for Inclusive orphan support projects ((UNICEF, 2008b).

II. STATEMENT OF THE PROBLEM

Available evidence shows that orphans have poor educational outcomes compared to non orphaned children. Orphaned learners, whose parents were perceived to have died of AIDS, experience heightened and sustained stigma and discrimination within the families, communities and schools. Socially excluded learners are likely to have problems with school attendance, participation in co-curricular activities, home work, and school discipline and are also more likely to altogether drop out of school; thereby generally impacting

negatively on their overall educational achievements. On the other hand, available research suggests that inclusive approaches and interventions with such children improve educational outcomes for such children.

Orphan support projects are designed, among other reasons to ensure improved educational outcomes for orphans and vulnerable children, and also to mitigate the negative effects of social exclusion. In view of the increasing number of orphaned learners in Kenya due to AIDS related mortality, there is increased call for orphan support projects to ensure the social exclusion of such learners. However, even as more orphan support projects continue to be designed and implemented in the country, little has been done to determine the perspectives of care givers, who are responsible for the day to day care of the orphaned children, on the influence of these projects the orphaned learners' educational achievements.

III. PURPOSE OF THE STUDY

The purpose of the study was to determine the perspectives of care givers on the influence of inclusive project design orientation on educational achievements of orphaned learners orphaned primary school learners enrolled in community based orphan support projects in Homa Bay County, Kenya.

IV. RESEARCH HYPOTHESIS

The study tested only one null hypothesis: H_0 : Inclusive Project design orientation does not significantly influence orphaned learners' educational achievements.

V. REVIEW OF RELATED LITERATURE

This section reviews the empirical literature on the influence of Inclusive project design orientation and the empirical literature on learners' educational achievements. The concept of Empirical literature on inclusive design orientations and their influence on learners' educational achievements are reviewed. The educational achievements literature reviewed include school attendance, participation in co-curricular activities, home work completion, and learner discipline. Empirical studies on these indicators of educational achievements are reviewed. While a number of studies focus on the test score as the most critical indicator of educational performance, we feel strongly that the indicators we have reviewed have a direct bearing on test scores and we strongly believe that they should be seen not as determinants of academic achievements, but as indicators of educational achievements.

A. *The Concept of Inclusive Project Design Orientation*

Inclusive project design orientation is conceptualized as project design thinking that fosters a sense of belonging and recognises the views of disadvantaged learners, has received sustained support from governments and development agencies involved in orphan support programming (Shier,

2001; UNICEF, 2008b). It has been argued that inclusive design orientation has positive influence on disadvantaged and vulnerable learners' educational outcomes (Shier, 2001; UNICEF, 2008b). The importance of utilizing inclusive project designs for disadvantaged and vulnerable learners have been emphasized by Shier's (2001) pioneering paper on participation of children in the learning process. Inclusive projects not only foster and sustain the participation of children, but lead to improved outcomes for disadvantaged children, including educational outcomes (Shier, 2001, UNICEF, 2008b). Since orphaned learners are invariably disadvantaged and are likely to have low self esteem, it is argued that one of the critical means through which their participation can be improved is by ensuring that they are meaningfully included and supported to participate in project activities (UNICEF, 2008b).

B. Inclusive Project Design Orientation and Educational Achievements

Inclusive project design orientation, conceptualized as project design thinking that fosters a sense of belonging and recognises the views of disadvantaged learners, has received sustained support from governments and development agencies involved in orphan support programming (Shier, 2001; UNICEF, 2008b). It has been argued that inclusive design orientation has positive influence on disadvantaged and vulnerable learners' educational outcomes (Shier, 2001; UNICEF, 2008b). The importance of utilizing inclusive project designs for disadvantaged and vulnerable learners have been emphasized by a number of scholars. Shier's (2001) pioneering paper on participation of children in the learning process, found that inclusive projects not only foster and sustain the participation of children, but improve the educational outcomes for such learners. He posited that disadvantaged and vulnerable children have low self esteem and one of the critical means through which their participation can be improved is by ensuring that they are meaningfully included and supported to participate in all the activities of the project. Shier argued that effective projects are socially inclusive and foster and sustain the participation of these children. He theorized that socially inclusive projects lead to improved developmental and learning outcomes for the children and thereby making them feel that their views are valued and listened.

A number of studies have examined the influence of inclusive project designs on the educational achievements of vulnerable and disadvantaged learners. Sainato, Morrison, Jung, Axe and Nixon (2015) investigated the effect of a model of inclusive kindergarten program on the adaptive behavior skills of children with autism spectrum disorder (ASD) was investigated. Forty-one children received instruction in an inclusive kindergarten program with their peers for 28 hrs a week. A comparison group (n = 21) received an eclectic intervention in public, general education, kindergarten classrooms. Examiners administered standardized tests of cognitive, language, and adaptive behavior skills to children in

both groups at the beginning and end of the school year. The results of the study indicated that there were no differences in test scores between the two groups at baseline. Following intervention, the model program group had higher mean standard scores in all skill domains. The differences were statistically significant for all domains except adaptive behavior and spoken language. These findings are consistent with reports of success for inclusive programs for preschool children with ASD. The results from the study suggest that inclusive projects improve educational achievements of learners.

Keesbury (2015) carried out a mixed methods case study to examine the effect of quality preschool programming on child outcomes in a blended inclusive preschool program implemented in an urban school system in the piedmont of North Carolina. The blended inclusive preschool program was a newly initiated program and had been in place for only 1 school year. Results of child outcomes and quality scores were analyzed using regression analyses. An analysis of the data revealed that there was a statistically significant improvement in child outcomes. Each student showed growth in all areas examined. The results from this study also demonstrate the significant positive influence of inclusive projects on educational achievements of learners.

The influence of inclusive faculty interactions with their learners on the experiences of learners was investigated by Neville, Parker (2017), in a phenomenological study that relied on classroom observations and 22 in-depth interviews with learners. Findings reveal the meaning learners made from these classroom interactions and the ways African American faculty, significantly and positively, influenced the student experience. More specifically, learners described the faculty as open, passionate, and caring, thereby making learners feel comfortable, valued, and respected. This study supports previous research on the benefits of student-faculty interactions by providing additional evidence regarding the importance and value African American faculty bring to the academy. The findings of the study point to the positive effects of inclusive processes on positive experiences of learners.

Patton, Bond, Carlin, Thomas, Butler, Glover and Bowes (2006) tested the efficacy of an intervention that was designed to promote social inclusion and commitment to education, in reducing learners' health risk behaviors and improving emotional well-being. The design was a cluster-randomized trial in 25 secondary schools in Victoria, Australia. The subjects were 8th-grade learners (aged 13 to 14 y) in 1997 (n = 2545) and subsequent 8th-grade learners in 1999 (n = 2586) and 2001 (n = 2463). The main outcomes were recent substance use, antisocial behavior, initiation of sexual intercourse, and depressive symptoms. Results suggests that at 4-year follow-up, the prevalence of marked health risk behaviors was approximately 20% in schools in the comparison group and 15% in schools in the intervention

group, an overall reduction of 25%. In ordinal logistic regression models a protective effect of intervention was found for a composite measure of health risk behaviors in unadjusted models (odds ratio [OR] = 0.69; 95% confidence interval [CI] = 0.50, 0.95) and adjusted models (OR = 0.71; CI = 0.52, 0.97) for potential confounders. There was no evidence of a reduction in depressive symptoms. The study provides support for prevention strategies in schools that move beyond health education to promoting positive social environments.

Vaughn, Elbaum and Schumm (1996) examined the effects of inclusion on the social functioning of learners with learning disabilities (LD). The study provided data on the social functioning (i.e., the degree of peer acceptance, self-concept, loneliness, and social alienation) of learners in second, third, and fourth grade who participated in an inclusive classroom for an entire year. The social functioning of learners identified as learning disabled (LD; n = 16), low achieving (LA; n = 27), and average/high achieving (AHA; n = 21) was assessed at the beginning and end of the school year. The learners with LD were less well liked and more frequently rejected than AHA learners. Although learners' overall self-worth did not differ by achievement group, the learners with LD demonstrated significantly lower academic self-concept scores. The learners with LD did not differ on ratings of loneliness, and they demonstrated increases in the number of within-class reciprocal friendships.

Hartung, Sproesser and Renner (2015) examined the effects of perceived and actual social inclusion on health across and within individuals from a network perspective. During the first semester, 75 freshmen learners provided bi-weekly ratings on their perceived social inclusion and health. To capture actual social inclusion, each student nominated liked and disliked fellow learners. Perceived social inclusion mediated the effect of actual social inclusion on health. Specifically, learners with more 'likes' perceived more social inclusion and those with higher perceived inclusion reported a better health status (between-person effect). In addition, at time points, when learners received more 'likes' they also perceived more social inclusion. They reported better health at times when they felt more included (within-person effect). The researchers concluded that the perception of social inclusion is rooted in reality and actual social inclusion has an impact on health when passing the filter of perception.

Maiorca-Nunez (2017) examined the differences between early childhood education and early childhood special education teachers' attitudes and beliefs and student growth outcomes across the special education program continuum, and also investigated whether teachers' attitudes and beliefs about inclusion impact the social-emotional, language, and cognitive outcomes of their learners. For this study, 39 teachers completed a survey that investigated their attitudes and beliefs related to social-emotional benefits, academic benefits, outcomes of inclusive practices, and implementation of inclusion. Mean comparisons and multilevel modeling were

used to determine if teacher attitudes and beliefs influenced student assessment outcomes. The analysis revealed that early childhood special education teachers had more positive attitudes toward the social-emotional benefits of inclusion of learners with disabilities than did early childhood education teachers. They also had more positive attitudes toward the implementation of inclusive practices. Learners with disabilities participating in co-teaching, inclusive models demonstrated higher social-emotional, literacy and language, and cognitive development growth outcomes than learners with disabilities participating in self-contained models. There was a correlation between teachers' attitudes and beliefs related to the social-emotional benefits and academic benefits of inclusion. Student participation in inclusion was a marginally significant predictor of higher social-emotional growth, and inclusion of learners with speech and language impairments was a marginally significant predictor of higher cognitive growth.

The association between children's involvement in decision about research participation with their perceptions with decision making-making process and self efficacy was examined by Miller, Feudtner and Jawad (2017). Participants were children (ages 8-17) who enrolled in research studies in the prior 2 months. Children completed a questionnaire that yielded three decision-making involvement subscales: Researcher Engages Child, Researcher Supports Autonomy, and Child Participates. Children reported on fairness of the decision-making process and health-related decision self-efficacy. After adjusting for age, higher scores on Researcher Engages Child were associated with greater self-efficacy, and higher scores on Researcher Supports Autonomy were associated with greater perceived fairness. These data underscore the potential importance of researcher-child interactions about research participation when assent is sought, including proactively involving children in the decision by asking for their opinions and communicating their central role in the decision, which are likely to be more meaningful to children than receiving information or signing a form.

Thurston (2014) used interpretative phenomenological analysis to examine and understand the way in which two vision-impaired learners with albinism experienced inclusion and support in high school. The learners, aged 16 and 15, had approximately 10% functional vision, stable from birth and had a record of additional support needs at their respective schools. They were interviewed using a simple schedule of open questions to explore their perceptions of inclusion and of using low-vision aids in school. The two main themes that emerged from the interviews were experiencing low vision in school and experiencing additional support in school. A negative cycle of inclusion was identified based on the learners' internalised feelings of difference. Discrepancy was identified between the low-vision aid priorities identified by experts and those identified by learners.

C. Learners' Educational Achievements

The educational achievements reviewed under this section include school attendance, participation in co-curricular activities, home work completion, and learner discipline. Empirical studies on these indicators of educational achievements are reviewed. While a number of studies focus on the test score as the most critical indicator of educational performance, we feel strongly that the indicators we have reviewed have a direct bearing on test scores and we strongly believe that they should be seen not as determinants of academic achievements, but as indicators of educational achievements.

The impact of educational reforms in India on school attendance among low income rural school learners aged 6-11 in India was evaluated by Datta Gupta, Dubey and Simonsen (2018). The researchers estimated a triple difference model allowing for differential (linear) trends and found a positive causal effect of school reforms on the school attendance rate of rural low-income children, although somewhat stronger for girls than boys. For both girls and boys in these groups, the increase in attendance rate was driven by the 6–11 age categories and by children of scheduled tribe or scheduled caste background.

Cosgrove, Chen and Castelli (2018) examined the relationship of grit as a construct representing perseverance to overcoming barriers and the total number of school absences to academic performance (AP) while controlling for sociodemographics, fitness and Body Mass Index (BMI). Adolescents (N = 397, SD = 1.85; 80.9% females; 77.1% Hispanic) from an urban, minority-majority city in the Southern United States completed the FitnessGram® assessment of physical fitness (e.g., aerobic capacity and Body Mass Index (BMI)) and the valid and reliable short grit survey. The schools provided sociodemographics, attendance, and AP data for the adolescents. The results showed that Adolescents with higher grit scores ($r_s=0.21$, $P < 0.001$) and less total absences ($r_s=-0.35$, $P < 0.001$) performed better on AP. Hierarchical multiple regression indicated that grit and absences were associated with AP ($\beta = 0.13$, $P < 0.01$ and $\beta = -0.35$, $P < 0.001$). Grit and a total number of absences are significant contributors to academic success, particularly among Hispanic adolescents.

The relations between family income, as measured by receipt of free or reduced-price lunch, school attendance, and academic achievement among a diverse sample of children from kindergarten to 4th grade ("N" = 35,419) was examined by Morrissey, Hutchison and Winsler (2014)) using both random and within-child fixed-effects models. The results suggest that the receipt of free or reduced-price lunch and duration of receipt have small but positive associations with school absences and tardiness. Poor attendance patterns predict poorer grades, with absences more associated with grades than tardiness. Given the small associations between receipt of free or reduced-price lunch and school attendance,

and between the duration of receipt of free or reduced-price lunch and children's grades, results do not provide strong evidence that absences and tardiness meaningfully attenuate relations between the duration of low family income and student achievement; poorer attendance and persistent low income independently predict poorer grades.

Sakiz (2017) reported the outcomes of a school-based programme aiming to promote achievement, attendance and positive perceptions towards the school climate and social-emotional adaptation among learners with disabilities (SWD). The programme included a series of training and social activities for school staff, parents and children followed by implementation of the knowledge gained through these activities. The programme lasted one school year and data were collected through quantitative and qualitative methods. Results of the study indicated enhanced student attendance and achievement, social-emotional development, and positive perceptions about the school climate. In addition, parents and teachers were mostly content with development of learners and the attempts of their schools to prompt student learning. Findings of this research indicate the significance of the holistic approach in educating SWD in mainstream schools and confirm that schools can make progress relying on their internal structures and planned action.

Participation in co-curricular activities has been considered as a critical determinant of educational achievements. Yokley-Busby (2013) assessed the impact of school attendance longevity participation in an after school program, attending one and two times or three times weekly for two years, designed to build intentional relationships and support academic success, on urban elementary school learners' achievement, attendance, and positive school awards was investigated. School attendance as measured by total end of the fifth-grade year overall absence totals were not statistically different where $F(2, 27) = 0.65$, $p = 0.530$. Findings suggest that even limited student participation after school program resulted in achievement, attendance, and earned awards consistent with the study's control group learners who were not in need of these after school services.

Streb (2009) carried out a study to determine the academic achievement of learners who are involved in co-curricular when statistically compared to the performance of their peers who are not involved in co-curricular activities. The scope of the investigation only included high school learners and the relationship between their involvement in activities and their academic performance. In addition, it does differentiate between the types of co-curricular activities a student is involved in, be it sports or performing groups, or even after-school clubs. Although there are many instruments used to measure student achievement, this study relied on two commonly utilized and universally accepted methods; ACT scores and Grade Point Averages. Much of the research into co-curricular activity participation by High School learners suggests that such pursuits have a positive correlation with

improved academic achievement. The research conducted in this study supports previous studies which showed that participation in co-curricular activities had a positive association with learners' academic achievement. In this study, 492 graduating seniors were surveyed regarding their four year participation in after-school programs. Academic success measure of ACT scores and GPA were used in the data analysis of these learners.

The relationship between participation in co-curricular activities and academic performance measured by grade-point averages and persistence measured by continued enrollment was examined by Pillar (2016) among 690 sophomore learners who entered a small private institution at the beginning of the 2013-2014 academic years. The researcher analyzed relationships among sophomore participation in co-curricular activities and academic performance measured by grade-point averages. Significant relationships were found among sophomore student participation in co-curricular activities, organizational type, academic success, and persistence. Statistical analyses indicated that participation in co-curricular activities led to increased enrollment by sophomore learners in their junior years. Further findings revealed that resident learners participated in co-curricular activities at higher rates and were also more likely to persist.

Jenkins (2009) used logistical regression and ordinary least squares to examine factors that contribute to the narrowing of the achievement gap at an urban high school in the Midwest. The study analyzed the relationship between five independent variables related to participation in co curricular activities, demographic characteristics of individual learners, and four dependent variables related to academic achievement at a large urban high school in the Midwest. The independent variables included the following: major, minor, and non-participation in co curricular activities, student background, and socioeconomic status. In this study, academic achievement was defined by high school class rank, grade point average, whether a student took the ACT exam and performance on the ACT exam. A database of 1,440 learners who graduated over a four year period from the large urban Midwestern high school between 2003 and 2006 was utilized. Major participation in co curricular activities had a statistically significant and positive influence on grade point average, high school class rank percentile, and performance on the ACT exam. However, co curricular participation was not found to have a statistically significant influence on the probability that a student takes the ACT exam.

The impact of organizational and motivational strategies on homework completion among high school learners was examined by Anliker, Aydt, Kellams and Rothlisberger (1997). The problem of homework completion was evidenced by existing grade and homework reports and teacher and student surveys. The strategy used to encourage learners to complete homework through enhancing their

organizational skills was a teacher-issued standard homework assignment notebook that served as a visual reminder of the homework assignments and their value. An individual student-generated grade record was also incorporated into the intervention, thereby increasing learners' responsibility for grade performance and knowledge. Procedures for failure to turn in homework, pink slips, were established with the learners, reinforcing again their responsibility for their academic achievement. Data on the impact of the intervention were collected through weekly teacher journals, comparison of the homework completion rate of comparable classes the previous year, pre-intervention surveys for parents and teachers, and pre- and post-intervention surveys for learners. Post-intervention data indicated an increase in the homework completion rate. A positive change in student attitude toward the importance of homework for academic success was evident in the post-intervention student surveys. There was also an increase in use of school time to complete homework assignments.

Brender (1996) investigated the effects of homework completion on test scores for 401 undergraduate learners, 94 percent African American, at an urban university in 2 levels of introductory Spanish, all with the same instructor. Five to six teacher-generated exams were administered during the course; the lowest test score for each student was discarded. Fairly consistent bell curves were noted for almost every class on virtually every test. Homework consisted of lengthy workbook assignments of 8-11 pages due the day of the chapter exam and short daily assignments of approximately one page; homework was reviewed at the beginning of each class. Although the text was changed four times, median test scores changed little with the different texts. Results indicate statistically significant correlations between homework completion rates and test scores based on class level. A strong correlation was found in the 101-level classes to support Keith's (1988, 1992) research suggesting a stronger correlation between achievement and homework for African Americans, although the reverse was noted in 102-level classes.

Brender (1996) investigated the relationship between learners' completion of homework assignments, both brief and lengthy, and student achievement on five to six teacher-developed exams administered during the semester among 401 Chicago State University (Illinois) undergraduate learners in elementary Spanish courses. The study spanned six semesters. Results show some statistically significant positive correlations between homework completion rates and test scores based on class level. It was also discovered that learners in the Spanish 101 course were much less likely than learners in the Spanish 102 course to complete their homework. Degree of difficulty of the courses is illustrated in the difference in median tests scores, which were lower in the second-semester group. No significant conclusion could be drawn about the relationship of race, homework completion, and test scores. Overall, it is concluded that learners who complete homework achieve better test scores.

Lynch, Theodore, Bray and Kehle (2009) employed an alternating-treatments design to compare the differential effect of group contingencies on the improvement of homework completion and accuracy of learners with disabilities in a self-contained fifth-grade classroom. Generally, past investigations have indicated a positive association between homework performance and academic achievement. Relative to their nondisabled peers, learners with learning disabilities are more at risk for homework problems. Thus, homework assignments are particularly important for learners with disabilities to reinforce learning and improve academic achievement. The results suggested that all group contingencies were effective in enhancing overall completion and accuracy, with no substantial differences evidenced by one contingency in particular.

Núñez, Suárez, Rosário, Vallejo, Valle and Epstein (2015) examined the relationship between perceived parental homework involvement (i.e., parental homework control and parental homework support), student homework behaviors (i.e., time spend on homework completion, time management, and amount of homework completed), and student academic achievement. Using Mplus5.1, a structural equation model was fit for 1683 learners at different stages of schooling (i.e., elementary school--5th and 6th grades; junior high school--7th and 8th grades; and high school--9th and 10th grades). The data showed that student homework behaviors, perceived parental homework involvement, and academic achievement are significantly related. However, results vary depending on the learners' grade level: (a) in junior high and high school, perceived parental homework involvement is related to learners' homework behaviors, but not in elementary school; and (b) although learners' homework behaviors are related to academic achievement at each school level, the direction and magnitude of the relationships vary. Specifically, the relationship between perceived parental homework involvement and academic achievement is stronger in junior high and high school than in elementary school; and student homework behaviors mediate the association between perceived parental homework involvement (control and support) and academic achievement only in junior high and high school.

The influence of homework experiences on learners' academic grades was studied by Kitsantas and Zimmerman (2009) with 223 college learners. Learners' self-efficacy for learning and perceived responsibility beliefs were included as mediating variables in this research. The learners' homework influenced their achievement indirectly via these two self-regulatory beliefs as well as directly. Self-efficacy for learning, although moderately correlated with perceptions of responsibility, predicted course grades more strongly than the latter variable. No gender differences were found for any of the variables, a finding that extends prior research based on high school girls. Educational implications about the importance of learners' homework completion and its relationship to college learners' development of self-regulation

and positive self-efficacy beliefs is discussed from a social cognitive perspective.

Blackfelner and Ranallo (1998) demonstrated that parent involvement has many beneficial effects for learners. This action research project designed and implemented a program to raise the academic achievement of second-grade learners by increasing parent involvement. The learners attended two second-grade classrooms in a west-central Illinois school. The problem of low academic achievement in the classrooms was studied using anecdotal records, teacher observations, test scores, and records of homework completion. Analysis of the data indicated that many factors influenced parent involvement, including: (1) parents' fear of school; (2) parents' lack of time; (3) parents' lack of transportation; and (4) parents' embarrassment about their own educational level. To increase parent involvement, a number of activities were developed, including: (1) daily use of a reflective journal by learners; (2) homework activities designed to check student and parent responsibility; (3) use of the school district's homework hotline phone system; (4) parent/child activity time at school, which was designed to acquaint parents with ways to help their children be more successful in school; (5) a newsletter; and (6) parent-teacher conferences. Surveys distributed at the end of the project indicated a positive change in parents' attitude toward communication between home and school, and that those who had volunteered felt good about the experience. Learners' scores on the posttest surveys showed a small improvement.

Simba, Agak and Kabuka (2016) carried out a study to determine the level of discipline and extent of impact of discipline on academic performance among class eight pupils in the sub-county's public primary schools. The study adopted descriptive survey and correlational research designs. The study population comprised 2,450 class eight pupils in the sub-county's public primary schools. From 34 randomly selected schools, 817 pupils were selected by stratified random sampling. Questionnaires were used to collect data on discipline and academic performance of the pupils. Reliability coefficients of the questionnaires were determined by test-retest method and found to be 0.83 and 0.97 for questionnaire on discipline and academic performance respectively. The questionnaires' face and content validity was ascertained by experts. Results indicated that 46 (5.6%), 214 (26.2%), 413 (50.6%) and 144 (17.6%) of the pupils had low, moderate, high, and very high discipline respectively. Also, discipline related positively with, and accounted for 23% of variance in the pupils' academic performance ($R = 0.480$, $\beta = 0.480$, $R^2 = 0.230$, $p < 0.05$). The study recommended enhancement of discipline among the pupils for improvement of their academic performance.

Schuck (2017) evaluated the effect of crime and discipline on graduation rates in higher education. Using national data on more than 1250 public and private non-profit institutions that were drawn from the Integrated Postsecondary

Education Data System, the results reveal that more violence on and around campus is associated with lower 4-year graduation rates, whereas higher rates of disciplinary actions regarding alcohol, drugs, and weapons are associated with higher graduation rates. Furthermore, the findings suggest that utilizing the student conduct system rather than the criminal justice system to address minor offenses is more likely to lead to student success. This study contributes to the growing literature on college effectiveness and the influence of institutional structures and organizational policies on student achievement. The results of this study suggest that violent crime, institutional conduct systems, and campus police departments warrant further investigation.

Garo (2017) examined school outcomes for Black male secondary school learners in relation to neighborhood violence, focusing on Disproportionality in out of school suspension and below-proficiency achievement on selected standardized tests. Grounded in trauma and strain theories, student aggressive response to violence is attributed in part to post-traumatic stress disorder as triggered by traumatic experience but also as anger and frustration over unjust treatment. The study hypothesized neighborhood violence as moderator between Black males and disparities among the selected outcomes as advocacy for trauma-sensitive practices in lieu of exclusionary discipline. Relative risk ratios calculated discipline and achievement disproportionality, while spatial and multi-level modeling methods examined statistical significant impacts of neighborhood violence exposure on student behavior (suspensions) and learning (test proficiency), considering also significance with individual, level-1 variables on special education, homelessness, arrest and unexcused absence. A neighborhood trauma vulnerability index (TVI), established via geographic information system, formed the level-2 variable in modeling of violence exposure on student outcomes.

Austin (2013) examined the influence of Effective Teens training on the attendance, discipline referrals, and academic achievement of 10th grade learners. The theoretical framework of the study was choice theory, which uses reality therapy to define how individuals may use thinking and evaluation to make pragmatic decisions. The theoretical basis for choice theory is that individuals are controlled by their needs and choose behaviors that meet the needs at that time. The research sample included 96 Grade 10 learners in 1 rural high school. A quasi-experimental, nonequivalent, pre- and post-test control group design was used to determine differences in the variables between the treatment and control groups. The independent variable was the presence or absence of a 3-week counselor-led activity based on the texts, "The 7 Habits of Highly Effective Teens" and "The 7 Habits of Highly Effective Teens Personal Workbook"; the dependent variables were attendance, discipline referrals, and academic achievement. An analysis of covariance revealed no significant differences in outcomes based on the treatment. Because counselors assist learners in focusing on academic,

personal/social and career development, the literature suggested that providing learners with access to counselors in the school setting may impact social change for learners by encouraging academic success and the development of skills that allow them to lead fulfilling lives as responsible citizens.

VI. METHODOLOGY

The study adopted a cross-sectional research design. Cross sectional design is based on observations made at one point in time (Kothari (1985). Cross-sectional design collects data in a single point in time from a sample drawn from a cross section of the population. The data was collected in a single point among orphaned learners. The diverse geographical locations of the orphan support projects and target population made cross-sectional design appropriate for this study. The sample size for this study was drawn from a target population of 7043 primary school orphaned learners in class 4 to class 8 supported by enrolled by 20 community-based orphan support projects in Homa Bay County, Kenya. Using Krecie and Morgan (1970) sample estimation table, a sample of 363 orphaned learners was deemed to be sufficient for this study. Proportionate stratified random sampling was used get a proportionate ratio of orphaned learners in the targeted classes. Proportionate sampling procedure was appropriate for the study since it ensured that the different sub-groups of orphaned learners (paternal, maternal and double orphaned learners in different classes from different orphan support projects).

The main instrument for data collection in this study was a self administered Care Givers' Questionnaire. The questionnaire had three sections. Section A was on the demographic profiles of the care givers, Section B: Sought had ten statements on Inclusive Project Design Orientation, C sought information on Orphaned Learners' Educational Achievements. The ten statements on Sections B and C of the questionnaire used positively and negatively worded items as recommended by Williams (1974), Numally (1978) Baumgartner and Steenkemp (2001), Podsakoff, *et al.*, (2003) and Weijters and Baumgartner (2012). These authorities argued that the use of positively and negatively worded statements in a questionnaire minimise bias because such items reduce speed and promote cognitive reasoning in the subjects. The section on Inclusive Project Design Orientation (ADO) contained five positively worded statements and five negatively worded statements to determine the extent to which the care givers agreed with the Inclusive project design orientation statements.

- *Theoretical Framework*

This study was guided by the Theory of Change (ToC) which is a framework for designing projects aimed at providing solutions to complex social problems. The theory of change requires the involvement of all project stakeholders and agreeing on the design issues and the outcomes that the project should address (Anderson (2005). The inclusive nature

of the theory of change makes it particularly relevant for the study since inclusive design orientation is one of the critical variables that the study investigates. The theory of change makes assumptions that complex social issues that affect the community can be effectively addressed when all the project stakeholders appreciate the views and perspectives of project beneficiaries through an inclusive dialogue process. The outcomes that are desired by the project must be discussed by all the stakeholders and consensus built around expected outcomes before any intervention is designed.

According to Vogel (2012) appreciating the different perspectives of project stakeholders before and after the design of community based projects is an important component of the theory of change model. Identifying and involving stakeholders in appropriate ways in the design of the project is essential to strengthen the impact potential of projects and interventions that target vulnerable populations and communities (Vogel, 2012). Using theory of change can be a helpful way to structure discussions with stakeholders about their perspectives on the issues, their priorities and to develop an understanding of the opportunities for design to influence positive and sustainable project outcomes.

The theory of change argues that the views of all project stakeholders should be included before and after the design of the project to ensure sustainable solutions to

complex social issues. The inclusive and participatory processes that are advocated by the theory of change are believed lead to project outcomes that are owned by all the stakeholders. Vogel's (2012) position on the importance of appreciating the different views and perspectives of project stakeholders is relevant to this study, since one of the objectives of the study is to investigate the extent to which Inclusive design orientation in orphan support projects affect orphaned learners. The theory of change is empowering since it integrates empowerment approaches for social change and participatory approaches in the development of projects targeting vulnerable populations and communities (James, 2011). The view that the theory of change integrates empowering approaches is relevant for this study since empowering orientation is one of the variables investigated in the study.

VII. FINDINGS

Care Givers' Demographic Profile

The demographic questionnaire for the care givers sought information on their age bracket, gender, marital status, number of orphaned learners they care for, number of years in taking care of orphaned learners and their highest educational qualifications.

Care Givers' Profile	Frequency	Percent (%)	Cumulative %
Age bracket			
18-25yrs	69	19.00	19.00
25-30yrs	37	10.19	29.19
30-35yrs	71	19.56	48.75
35-40yrs	64	17.63	66.38
40-45yrs	19	5.23	71.61
45-50yrs	54	14.89	86.50
50-55 yrs	27	7.44	93.94
Above 55 yrs	22	6.06	100.0
Total	363	100.0	
Gender			
Male	65	17.91	17.91
Female	298	82.09	100
Total	363	100	
Marital status			
Married	152	41.87	41.87
Widowed	103	28.38	70.25
Divorced	55	15.15	85.40
Not Married	53	14.60	100
Total	363	100	

No. Of Orphaned learners taken care of			
1-2	113	31.13	31.13
3-5	132	36.36	67.49
More than 5	118	32.51	100
Total	363	100	
No of years taking care of orphaned learners			
Less than 1 year	59	16.25	16.25
1-5 years	139	38.29	54.54
6-10 years	76	20.94	75.48
More than 10 years	89	24.52	100
Total	363	100	
Highest educational qualification			
Degree	34	9.37	9.37
Diploma	43	11.85	21.22
Secondary certificate	143	39.39	60.61
Primary certificate	143	39.39	100
Total	363	100	

Table 1. Care givers' Demographic Profile

Table 1 presents a summary of the demographic profile of the care givers. Out of the 363 sampled care givers, Majority of the care givers 69 (19.56%) were aged between 30-35 years; 69 (19.0%) of the care givers were aged between 18-25 years; 37 (10.19%) were aged between 25-30 years ;71 (19.56%) were between 30-35 years ;64 (17.63%) of the care givers were aged 35-40 years; 19 (5.23%) of the care givers were aged 40-45 years ; 54 (14.89%) of the care givers were aged 45-50 years; 27(7.44%) of the care givers were aged 50-55 years; while 22(6.06%) of the care givers were aged 55 years and above.

Majority 298 (82.09) of the care givers were female; while only 65 (17.91%) of the care givers were male. The findings on the gender distribution suggesting that the burden of caring for orphaned learners placed on the women, which points to the feminization of caring for orphans in Homa Bay County. 152 (41.87%) of the care givers were married; 103 (28.38%) of the care givers were widowed; 55(15.15%) of the care givers were divorced while 53(14.6%) of the care givers were not married. The data suggests that married couples were more likely to take care of orphaned learners, pointing to

relatively stable family care environments for the orphaned learners.

113(31.13%) care givers took care of between 1-2 orphaned learners;132 (36.36%) of the care givers took care of between 3-5 orphaned learners; 118(32.51%) of the care givers took care of more 5 orphaned learners. The data on the number of orphans being taken care of points to the high number of

orphans in Homa Bay County. 59(16.25%) of the care givers had less one year in taking care of orphaned learners,139 (38.29%) of the care givers had between 1-5 years experience in taking care of orphaned learners;76(20.94%) of the care givers had between 6-10 years while 89(24.52%)of the care givers had more than 10 years in taking care of orphaned learners. 34(9.37%) of the care givers had a degree, 43(11.85%) of the care givers had diploma; 143(39.39%) of the care givers had secondary school certificate and an equal number of 143(39.39%) of the care givers had primary school level certificate, indicating the relatively high literacy level among the care givers in the county.

Items	Orphaned Learners' Educational Achievements Statements	SD(1)	D(2)	N(3)	A(4)	SA(5)	Mean	SD
OLEA1	The orphaned learners attend school regularly	73(20.11%)	61(16.8%)	40(11, 02%)	90(24.79%)	99(27.2%)	3.45	1.39
OLEA2	The orphaned learners do not attend school regularly	78(21.49%)	101(27.82%)	44(12.12%)	99(27.27%)	41(11.30%)	2.96	1.35
OLEA3	The orphaned learners participate in co-curriculum activities	63(17.36%)	38(10.47%)	44(12.12%)	127(37.99%)	91(25.07%)	3.58	1.29
OLEA4	The orphaned learners do not participate in co-curriculum activities	85(23.42%)	96(26.45%)	42(11.57%)	64(17.63%)	76(20.94%)	2.77	1.38
OLEA5	The orphaned learners behave well in school	51(14.05%)	48(13.22%)	76(20.94%)	106(29.20%)	82(22.59%)	3.53	1.20
OLEA6	The orphaned learners do not behave well in school	83(23.69%)	103(28.37%)	87(23.97%)	54(14.88%)	33(9.09%)	2.62	1.28
OLEA7	The orphaned learners pass school examinations and get promoted to the next class	53(14.60%)	40(11.02%)	57(15.70%)	115(31.68%)	98(27.00%)	3.66	1.23
OLEA8	Orphaned learners do not pass school exams and they have to repeat classes	80(22.04%)	77(21.21%)	55(15.15%)	105(28.93%)	46(12.67%)	3.12	1.27
OLEA9	The orphaned learners always do their home work	63(17.36%)	51(14.36%)	61(16.80%)	102(28.10%)	86(23.69%)	3.46	1.298
OLEA10	The orphaned learners do not always do their home work	97(26.72%)	103(28.37%)	66(18.18%)	64(17.63%)	33(9.09%)	2.65	1.301

Table 2. Descriptive Statistics on Care Givers' Perspectives on Orphaned Learners' Educational Achievements

Table 2 presents the descriptive statistics of care givers' perspectives on Orphaned Learners' Educational Achievements. Item OLEA1 sought to establish the extent to which orphaned learners attend school regularly. Out of the 363 care givers who responded to item OLEA1, 73(20.11%) strongly disagreed with the statement that orphaned learners attend school regularly, 61(16.8%) disagreed with the statement, 40(11, 02%) were neutral, 90(24.79%) agreed with the statement and 99(27.2%) strongly agreed with the statement. The mean for the care givers' response was 3.45 while the standard deviation was 1.39, suggesting that according to the care givers, orphaned learners attend school regularly. Item OLEA2 sought to establish the extent to which orphaned learners do not attend school regularly. Out of the 363 care givers who responded to item OLEA2, 78(21.49%) strongly disagreed with the statement that orphaned learners do not attend school regularly, 101(27.82%) disagreed with the statement, 44(12.12%) were neutral, 99(27.27%) agreed

with the statement and 41(11.30%) strongly agreed with the statement. The mean for the care givers' response was 2.96 while the standard deviation was 1.35, suggesting that the care givers disagreed that orphaned learners attend do not school regularly.

Item OLEA 3 sought to establish the extent to which orphaned learners participate in co-curricular activities. Out of the 363 care givers who responded to this item, 63(17.36%) strongly disagreed with the statement that orphaned learners participate in co-curricular activities, 38(10.47%) disagreed with the statement, 44(12.12%) were neutral, 127(34.99%) agreed with the statement and 91(25.07%) strongly agreed with the statement that orphaned learners participate in co-curricular activities. The mean score and the standard deviation for the orphaned learners on this item was 3.58 and 1.29, respectively, suggesting that majority of the care givers agreed that orphaned learners participate in co-curricular activities. Item OLEA 4 sought to establish the extent to

which orphaned learners do not participate in co-curricular activities. Out of the 363 care givers who responded to this item, 85(23.42%) strongly disagreed with the statement that orphaned learners do not participate in co-curricular activities, 96(26.45%) disagreed with the statement, 42(11.57%) were neutral, 64(17.63%) agreed with the statement and 76(20.94%) strongly agreed with the statement that orphaned learners do not participate in co-curricular activities. The mean score and the standard deviation for the orphaned learners on this item was 2.77 and 1.38, respectively, suggesting that majority of the care givers disagreed that orphaned learners do not participate in co-curricular activities.

Item OLEA 5 sought to establish the extent to which orphaned learners are disciplined. Out of the 363 care givers who responded to this item, 51(14.05%) strongly disagreed with the statement that orphaned learners are disciplined, 48(13.22%) disagreed with the statement, 76(20.94%) were neutral, 106(29.20%) agreed with the statement and 82(22.59%) strongly agreed with the statement that orphaned learners are disciplined. The mean score and the standard deviation for the care givers on this item was 3.53 and 1.20, respectively, suggesting that majority of the care givers agreed with the statement that orphaned learners are disciplined. Item OLEA 6 sought to establish the extent to which orphaned learners are not disciplined. Out of the 363 care givers who responded to this item, 86(23.69%) strongly disagreed with the statement that orphaned learners are not disciplined, 103(28.37%) disagreed with the statement, 87(23.97%) were neutral, 54(14.88%) agreed with the statement and 33(9.09%) strongly agreed with the statement that orphaned learners are not disciplined. The mean score and the standard deviation for the care givers on this item was 2.62 and 1.28, respectively, suggesting that majority of the care givers disagreed with the statement that orphaned learners are not disciplined.

Item OLEA7 sought to establish the extent to which orphaned learners pass school based examinations and progress to the next grade. Out of the 363 care givers who responded to this item, 53(14.60%) strongly disagreed with the statement that orphaned learners pass school based examinations and progress to the next grade, 40(11.02%) disagreed with the statement, 57(15.70%) were neutral, 115(31.68%) agreed with the statement and 98(27.00%) strongly agreed with the statement that orphaned learners pass school based examinations and progress to the next grade. The

mean score and the standard deviation for the care givers on this item was 3.66 and 1.23, respectively, suggesting that majority of the care givers agreed with the statement that orphaned learners pass school based examinations and progress to the next grade. Item OLEA8 sought to establish the extent to which orphaned learners do not pass school based examinations and do not progress to the next grade. Out of the 363 care givers who responded to this item, 80(22.04%) strongly disagreed with the statement that orphaned learners do not pass school based examinations and progress to the next grade, 77(21.21%) disagreed with the statement, 55(15.15%) were neutral, 105(28.93%) agreed with the statement and 46(12.67%) strongly agreed with the statement that orphaned learners do not pass school based examinations and progress to the next grade. The mean score and the standard deviation for the care givers on this item was 3.12 and 1.27, respectively, suggesting that majority of the care givers disagreed with the statement that orphaned learners do not pass school based examinations and progress to the next grade.

Item OLEA9 sought to establish the extent to which orphaned learners always do their home work. Out of the 363 care givers who responded to this item, 63(17.36%) strongly disagreed with the statement that orphaned learners always do their home work, 51(14.05%) disagreed with the statement, 61(16.8%) were neutral, 102(28.10%) agreed with the statement and 86(23.69%) strongly agreed with the statement that orphaned learners always do their home work. The mean score and the standard deviation for the care givers on this item was 3.46 and 1.298, respectively, suggesting that majority of the care givers agreed with the statement that orphaned learners always do their home work. Item OLEA10 sought to establish the extent to which orphaned learners do not always do their home work. Out of the 363 care givers who responded to this item, 97(26.72%) strongly disagreed with the statement that orphaned learners do not always do their home work, 103(28.37%) disagreed with the statement, 66(18.18%) were neutral, 64(17.63%) agreed with the statement and 33(9.09%) strongly agreed with the statement that orphaned learners do not always do their home work. The mean score and the standard deviation for the care givers on this item was 2.65 and 1.301, respectively, suggesting that majority of the care givers disagreed with the statement that orphaned learners do not always do their home work.

	Statements	SD(1)	D(2)	N(3)	A(4)	SA(5)	Mean	SD
		f (%)	f (%)	f (%)	f (%)	f (%)		
INDO1	The orphaned learners are involved in the activities of the project	86(23.69%)	37(10.19%)	25(6.89%)	114(31.41%)	101(27.82%)	3.43	1.49
INDO2	The orphaned learners are not involved in the activities of the project	84(23.14%)	139(38.29%)	68(18.73%)	41(11.30%)	31(8.54%)	2.38	1.25
INDO3	The views of the orphaned learners are valued by the project	86(23.69%)	44(12.12%)	49(13.50%)	106(29.20%)	78(21.49%)	3.28	1.42
INDO4	The views of the orphaned learners are not valued by the project	88(24.24%)	112(30.85%)	82(22.59%)	51(14.05%)	30(8.26%)	2.46	1.29
INDO5	The project considers opinions of the orphaned learners	54(14.88%)	50(13.77%)	81(22.31%)	108(29.75%)	70(19.28%)	3.27	1.38
INDO6	The project does not consider the views of the orphaned learners	87(29.97%)	97(26.72%)	52(14.33%)	52(14.33%)	75(20.66%)	2.55	1.33
INDO7	The orphaned learners are valued as a person by the project	67(18.46%)	38(10.47%)	35(9.64%)	125(34.44%)	98(27.00%)	3.60	1.34
INDO8	The orphaned learners are not valued as a person by the project	112(30.85%)	116(31.96%)	62(17.08%)	53(14.60%)	20(5.51%)	2.18	1.20
INDO9	The orphaned learners feel like strangers in the project	97(26.72%)	104(28.65%)	54(14.88%)	53(14.60%)	55(15.15%)	2.49	1.36
INDO10	The orphaned learners feel like members of the project	52(14.88%)	48(13.22%)	53(14.60%)	111(30.58%)	97(26.72%)	3.55	1.35

Table 3:- Descriptive Statistics on Care Givers’ Perspectives on Inclusive Design Orientation

Table 3 presents the descriptive statistics on Care givers’ perspectives on Inclusive Design orientation and Orphaned Learners’ Educational Achievements. Five positively worded statements and five negatively worded statements were used to determine the perspectives of Care givers on the influence of inclusive design orientation on orphaned learners’ educational achievements.

INDO1 was positively worded and sought to establish the extent to which the Care givers agreed, disagreed

or were neutral on the statement that they are involved in the activities of the project. 86(23.69%) of the Care givers strongly disagreed with the statement; 37(10.19%) of the Care givers disagreed with the statement; 25(6.89%) were neutral; 114(31.41%) agreed with the statement, while 101(27.82%) strongly agreed with the statement that orphaned are involved in the activities of the project. The mean of INDO1 item was 3.43, while the standard deviation of the INDO1 was 1.49, suggesting that the Care givers agreed with the statements that

they are involved in the activities of the projects. INDO2 was negatively worded and sought to establish the extent to which the Care givers agreed, disagreed or were neutral on the statement that they are not involved in the activities of the project. 84(23.14%) of the Care givers strongly disagreed with the statement; 139(38.29%) disagreed with the statement, 68(18.73%) were neutral, 41(11.30%) agreed with the statement, 31(8.54%) strongly agreed with the statement. The mean of the statement was 2.38 with a standard deviation of 1.25 suggesting that the Care givers disagreed with the statement that they are not involved in the activities of the projects.

INDO3 was positively worded and sought to establish the extent to which the Care givers agreed, disagreed or were neutral on the statement that the views of the Care givers are valued by the projects. 86(23.69%) of the Care givers strongly disagreed with the statement; 44(12.12%) disagreed with the statement, 49(13.50%) were neutral, 106(29.20%) agreed with the statement, while 78(21.49%) strongly agreed with the statement. The mean of the statement was 3.28 with standard deviation of 1.42 suggesting that Care givers agreed with the statement that the views of the orphaned learners are valued by the projects. INDO4 was negatively worded and sought to establish the extent to which the Care givers agreed, disagreed or were neutral on the statement that the views of the Care givers are valued by the projects. 88(24.24%) of the Care givers strongly disagreed with the statement; 112(30.85%) disagreed with the statement, 82(22.59%) were neutral, 51(14.05%) agreed with the statement, while 30(8.26%) strongly agreed with the statement. The mean of the statement was 2.46 with standard deviation of 1.29 suggesting that that Care givers disagreed with the statement that the views of the orphaned learners are valued by the projects.

INDO5 was positively worded and sought to establish the extent to which the Care givers agreed, disagreed or were neutral on the statement that the project considers the opinions of the orphaned learners. 54(14.88%) of the Care givers strongly disagreed with the statement; 50(13.77%) disagreed with the statement, 81(22.31%) were neutral, 108(29.75%) agreed with the statement, while 70(19.28%) strongly agreed with the statement. The mean of the statement was 3.27 with standard deviation of 1.34 suggesting that the Care givers agreed with the statement that the project considers the opinions of the orphaned learners. INDO6 was negatively worded and sought to establish the extent to which the Care givers agreed, disagreed or were neutral on the statement that the project does not consider the opinions of the orphaned learners. 87(29.97%) of the Care givers strongly disagreed with the statement; 97(26.72%) disagreed with the statement, 52(14.33%) were neutral, 52(14.33%) agreed with the statement, while 75(20.66%) strongly agreed with the statement. The mean of the statement was 2.55 with a standard deviation of 1.33 suggesting that the Care givers disagreed

with the statement that the project does not consider the opinions of the orphaned learners.

INDO7 was positively worded and sought to establish the extent to which the Care givers agreed, disagreed or were neutral on the statement that the orphaned learners are valued as a person by the projects. 67(18.46%) of Care givers strongly disagreed with the statement; 38(10.47%) disagreed with the statement, 35(9.64%) were neutral, 125(34.44%) agreed with the statement, while 98(27.00%) strongly agreed with the statement. The mean of the statement was 3.60 with a standard deviation of 1.34 suggesting that the Care givers agreed with the statement that the orphaned learners are valued as a person by the projects. INDO8 was negatively worded and sought to establish the extent to which the Care givers agreed, disagreed or were neutral on the statement that orphaned learners are valued as a person by the projects. 112(30.85%) of the Care givers strongly disagreed with the statement; 116(31.96%) disagreed with the statement, 62(17.08%) were neutral, 53(14.60%) agreed with the statement, while 20(5.51%) strongly agreed with the statement. The mean of the statement was 2.18 with a standard deviation of 1.20 suggesting that the Care givers disagreed with the statement that orphaned learners are valued as a person by the projects.

INDO9 was positively worded and sought to establish the extent to which the Care givers agreed, disagreed or were neutral on the statement that the orphaned learners feel like members of the project. 97(26.72%) of the Care givers strongly disagreed with the statement; 104(28.65%) disagreed with the statement, 54(14.88%) were neutral, 53(14.60%) agreed with the statement, while 55(15.15%) strongly agreed with the statement. The mean of the statement was 2.49 with a standard deviation of 1.36 suggesting that the Care givers agreed with the statement that the orphaned learners feel like members of the projects. INDO10 was negatively worded and sought to establish the extent to which the Care givers agreed, disagreed or were neutral on the statement that the orphaned learners do not feel like members of the project. 52(14.88%) of the Care givers strongly disagreed with the statement; 48(13.22%) disagreed with the statement, 53(14.60%) were neutral, 111(30.58%) agreed with the statement, while 97(26.72%) strongly agreed with the statement. The mean of the statement was 3.55 with a standard deviation of 1.35 suggesting that the Care givers disagreed with the statement that the orphaned learners do not feel like members of the projects.

➤ *Correlation Analysis on Care Givers' Perspectives on Inclusive Design Orientation and Orphaned Learners' Educational Achievements*

Pearson product moment correlation coefficient was used in order to establish the existence or non existence of significance relationship as well as the degree or strength of association between Inclusive Design Orientation and

Orphaned Learners’ Educational Achievements, from the perspectives of the care givers. The bivariate correlation

through Pearson correlation coefficient was opted for since the data scale was interval in nature.

Correlations of individual statements on Inclusive Design Orientation		Orphaned Learners’ Educational Achievements
Orphaned Learners’ Educational Achievements	Pearson Correlation Sig. (2-tailed) N	1 363
INDO1:The orphaned learners are involved in the activities of the project	Pearson Correlation Sig. (2-tailed) N	-.113* .041 363
INDO2:The orphaned learners are not involved in the activities of the project	Pearson Correlation Sig. (2-tailed) N	-.193** .001 363
INDO3:The views of the orphaned learners are valued by the project	Pearson Correlation Sig. (2-tailed) N	.031 .581 363
INDO4:The views of the orphaned learners are not valued by the project	Pearson Correlation Sig. (2-tailed) N	-.265** .000 363
INDO5:The project considers opinions of the orphaned learners	Pearson Correlation Sig. (2-tailed) N	-.029 .609 363
INDO6:The project does not consider the views of the orphaned learners	Pearson Correlation Sig. (2-tailed) N	-.158** .005 363
INDO7:The orphaned learners are valued as a person by the project	Pearson Correlation Sig. (2-tailed) N	-.054 .363 363
INDO8:The orphaned learners are not valued as a person by the project	Pearson Correlation Sig. (2-tailed) N	-.185** .001 363
INDO9:The orphaned learners feel like members of the project	Pearson Correlation Sig. (2-tailed) N	-.105 .061 363
INDO10:The orphaned learners do not feel like members of the project	Pearson Correlation Sig. (2-tailed) N	-.059 .296 363

Table 4: Correlation Statistics on Care Givers’ Perspectives on Inclusive Design Orientation and Orphaned Learners’ Educational Achievements

Table 4 presents the correlation statistics on Care givers’ perspectives on the relationships between Inclusive Design Orientation on Orphaned Learners’ Educational Achievements. The correlation output table shows that not all the Inclusive Design Orientations were significantly related (P-values<0.05) against the indicators of Orphaned Learners’ Educational Achievements, similarly one out of five positively worded Inclusive Design Orientation statement (INDO3:The views of the orphaned learners are valued by the project r= 0.031,) was positively correlated with Orphaned Learners’ Educational Achievements and negatively worded inclusive Design Orientations were all negatively correlated with Orphaned Learners’ Educational Achievements. The small p-values (p<0.05) implies that there is a significant

relationship between Inclusive Design Orientation and Orphaned Learners’ Educational Achievements, leading to rejection of the null hypothesis that Inclusive Design Orientation does not significantly influence Orphaned Learners’ Educational Achievements in Homa Bay County. The finding suggests that there is a significant relationship between Inclusive Design Orientation and Orphaned Learners’ Educational Achievements.

➤ *Regression Analysis on Care Givers’ Perspectives on Inclusive Design Orientation and Orphaned Learners’ Educational Achievements*

Simple linear regression was adopted to investigate how Inclusive Design Orientation predicted Orphaned Learners’

Educational Achievement, from the perspectives of the care givers. The underpinning rationale of using the model was to establish how each predictor significantly or insignificantly predicted Orphaned learners’ educational achievements;

secondly to find out which of the designs orientation best predicted Orphaned Learners’ Educational Achievements and finally to confirm whether the model was a best fit for predicting Orphaned learners educational achievements.

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25.262	10	25.262	23.457	.000 ^b
	Residual	284.317	353	1.077		
	Total	309.579	363			

a. Dependent Variable: Orphaned learners Educational Achievements

b. Predictors: (Constant), Inclusive Design Orientation

Table 5. An ANOVA for the Regression on Care Givers’ Perspectives on Inclusive Design Orientation and Orphaned Learners’ Educational Achievements

Table 5 presents an ANOVA for the regression of the perspectives of care givers on Inclusive Design Orientation and Orphaned learners’ educational achievements. The above ANOVA table provides F-test for the null hypothesis that none of the explanatory variables from Inclusive Design Orientation are related to Orphaned Learners’ Educational Achievements. The null hypothesis (H₀₃: Inclusive Design Orientation does not significantly influence orphaned learners’ educational

achievements in Homa Bay County) was rejected since (F(10,353)= 23.457, P –Value <0.05. From the results, it was concluded that at least one of the explanatory variables is significantly related to the orphaned learners’ educational achievements. From the perspectives of the care givers, Inclusive Design Orientation had positive influence on the Orphaned Learners’ Educational Achievements.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	1.914	.286		6.695	.000	1.351	2.476
IDO	.380	.078	.286	4.843	.000	.226	.535

Table 6: Coefficients for the Regression on Care Givers’ Perspectives on Inclusive Design Orientation and Orphaned Learners’ Educational Achievements

Table 6 presents the coefficients for the regression on care givers’ perspectives on Inclusive Design Orientation and Orphaned learners’ educational achievements. The simple linear regression model is $Y=1.914+0.380X_3$, implying that were there no Inclusive Design Orientation, Orphaned Learners’ Educational Achievements would be 1.979. The model shows that the slope coefficient was 0.380 and had statistical significance. From the perspectives of the care givers, Inclusive Design Orientation had positive influence on Orphaned Learners’ Educational achievements. There was enough statistical evidence to show that Inclusive Design Orientation influenced Orphaned Learners’ Educational Achievements.

The purpose of the study was to determine the perspectives of care givers on the influence of inclusive project design orientation on educational achievements of orphaned learners orphaned primary school learners enrolled in community based orphan support projects in Homa Bay County, Kenya. Inclusive project design orientation , conceptualized as project design thinking that fosters a sense of belonging and recognises the views of disadvantaged learners, (Shier, 2001; UNICEF, 2008b), is believed to have beneficial influence on a wide range of outcomes, including educational outcomes for disadvantaged and vulnerable children, like the orphaned learners (Shier, 2001; UNICEF, 2008b). From the results of the study, inclusive project design approaches were found to have significant positive influence on the educational achievements of orphaned learners enrolled in community based orphan support projects in Homa Bay

VIII. DISCUSSION

County, Kenya. Government and donor policy makers, including care givers in orphan support projects should ensure that inclusive project design approaches are integrated during the design of the projects.

The results of the descriptive statistics on the care givers perspectives on educational achievements indicate that majority of the care givers strongly agreed that school attendance, participation in co-curricular activities, learner discipline, home work completion and grade progression, were important indicators of orphaned learners' educational achievements. The null hypothesis (H_0 : Inclusive Design Orientation does not significantly influence orphaned learners' educational achievements in Homa Bay County) was rejected since ($F(10,353)= 23.457$, P -Value <0.05). From the results, it was concluded that at least one of the explanatory variables is significantly related to the orphaned learners' educational achievements. From the perspectives of the care givers, Inclusive Design Orientation had positive influence on the Orphaned Learners' Educational Achievements.

IX. CONCLUSIONS AND RECOMMENDATIONS

The governments of Kenya, development partners and community based organizations involved in orphan support programming should ensure the integration of inclusive design orientation and approaches when designing and implementing orphan support projects. The study has demonstrated that inclusive design orientations, approaches and mind sets have significant positive influence on the educational achievements of orphaned learners. The integration of inclusive project design orientation may call for special training and capacity building not just to project designers but also to policy makers, donors and organizations and individuals involved in orphan support programming.

Whereas the educational achievements of orphaned learners is at the heart of orphan support programming, the absence of a documented policy on orphaned learners' educational achievements has affected the realization of the educational achievement goals in orphan support projects. There is strong research evidence that despite the efforts to promote the education of orphaned learners in the country, the achievement gap is still widening. Compared to non orphaned learners, a number of orphaned learners still have poor educational outcomes. The development and enforcement of educational achievement policy, which is holistic and not just focussed on improving test scores and passing examinable subjects, will hopefully reduce and seal the gap. The government of Kenya should ensure the development of an educational achievement policy to be implemented by all stakeholders involved in orphan support programming.

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