



The effect of employee training on project performance A case of the Girl Child Catch up project of the International Education Exchange

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ABSTRACT

The main purpose of the study is to assess the effect of employee training on project performance. The study used the case of the 'Girl Child Catch up project' of International Education Exchange (IEE). Trainer characteristics, training design, managerial/peer support and trainee characteristics were used to predict performance. The objectives of the study were: to examine the effect of trainer characteristics on performance on the girl child catch up project, to assess the effect of managerial/peer support on performance of the girl child catch up project, to examine the effect of trainee characteristics on performance and to assess the relationship between trainer characteristics, training design, managerial/peer support, trainee characteristics and project performance. Both qualitative and quantitative techniques were utilized and census method was used given the small size (50) of the study population. Questionnaires were distributed for data collection, the data coded and analyzed by way of SPSS. The analysis was the descriptive, correlation and regression. Findings indicated that, trainee characteristics, peer support, trainer characteristics and training design account for 10.6% (R squared .106) variance in the performance of the girl child catch up project. Thus, the model was significant in the prediction of performance on the girl child catch up project due to employee training. The study recommends that the girl child catch up project encourage an environment that promotes effective training by giving managerial/peer support needed in the training with aim to improve on the performance of the project.

Key words: Employee training; project performance.

1. Introduction

Training has increased its importance in today's intense environment of global competition and fast change where jobs are complex and often change. As a result, certain project management organizations run training courses for their employees (Maylor, 2010). This is perhaps backed by the Project Management Body of Knowledge (PMBOK, 2008) which highlights training as one of the tools and techniques to develop project teams. Similarly, Becker (1962) linked investment in human capital with high productivity and reduced mobility of workers while Salas and Cannon-Bowers (2001) argued that employee training creates competitive advantage, provides innovations and opportunities to improve employee skills, knowledge and firm performance. It follows, as put by Martocchio and Baldwin (1997) that there is a growing awareness in organizations that the investment in training improves performance.

Despite the number of studies that have estimated the effects of training on performance (Zwick 2006), establishing the effect of training on performance on projects has been a matter of great concern in management circles. Kerzner (2010) posited that it's crucial that training should not be performed unless there is continuous return on the dollar for the organization. Similarly, Kraiger, McLinden and Casper (2004) criticized training as faddish or too expensive while

Wright and Geroy (2001) maintained that there is growing skepticism about the training and the theoretical underpinning linking it with performance.

Consequently, certain organizations are becoming more conscious and sensitive as they have to justify training expenses by providing some evidence about its positive effect on project results. Hence, as Punia and Kant (2013) put it, the issue of assessing the effect of employee training has begun to gain significance over the last few years. Yet, whether or not employee training improves performance depends on several influential factors as Thang, Quang, and Buyens (2010) suggested that researchers studying training and performance need to consider the impact of various dimensions of employee training program; the type of training methods and design, the type of employees trained, and time spent by employees in training on the topic of firm performance.

This study is aligned to that. It mainly focused on factors known from literature review to influence effective employee training thus; training design, trainer characteristics, managerial/peer support and trainee characteristics to predict performance on projects in terms of enhancing meeting project targets. The paper uses the case of the “Girl Child Catch up” Project of International Education Exchange (IEE) - a civil society organization implementing education quality support activities in schools in Rwanda to contextualize the study.

2. Statement of the Problem

The Project Management Body of Knowledge highlights training as one of the tools and techniques for developing project teams and mentions training needs as one of the components of the Project Human Resource plan (PMBOK, 2008). As a result, some project management organizations run training courses for employees (Maylor, 2010). Bohlander and Snell (2007) argued that training increases performance, improves morale and increase the organization’s potential but, there is little in terms of literature in management circles to serve as evidence on how employee training contributes to performance.

The International Education Exchange (IEE) runs educational quality improvement projects in Rwanda and places emphasis on project teams’ training to equip employees with skills required for effective execution of specific projects such as the Girl Child Catch up (IEE, 2014). Thus, the organization instituted a biweekly employee training program that uses both specialist trainers externally hired and peer trainers chosen from among employees. However, the criteria by which training needs and goals are determined is not defined to project teams, some trainings are not in line with the targets of specific projects and some times, trainees/project employees report dissatisfaction with limited managerial support during training and implementation of project activities (E. Murenzi, Personal communication 2013). The employee training program has also not been evaluated in IEE to determine how it contributes to performance of projects run by the organization (IEE, 2014).

Edens and Bell (2003) argued that many training activities in different organizations are implemented on blind faith with only the hope that they will yield results. Yet, Kerzner (2010) argued that training should not be performed unless there is a return to it. Wright and Geroy (2001) pointed to the rising skepticism about training and the theoretical underpinning of linking it with performance while Thang, et al, (2010) suggested that researchers studying training and performance need to consider the impact of various dimensions of employee training programs. It is from this background, that the study found it pertinent to analyze how factors such as trainer characteristics affect employee trainings and assess if these factors are linked to performance on projects. It is hoped that the study will address the knowledge gap and skepticism on the link between employee training and performance on projects.

3. Research Objective

3.1 General Objective

The overall objective of the study is to assess the effect of employee training on performance of the girl child catch-up project.

3.2 Specific Objectives

- i. To examine the effect of trainer characteristics on performance on the girl child catch up project.
- ii. To assess the effect of managerial/peer support on performance of the girl child catch up project.
- iii. To examine the effect of trainee/employee characteristics on performance on the girl child catch up project.
- iv. To find out the relationship between trainer/trainee characteristics, managerial support, and training design on project performance on the girl child catch up project.

3.3 Research Questions

The study was guided by the following questions

- i. What is the effect of trainer characteristics on performance of the girl child catch up project?

- ii. What is the effect of managerial/ peer support on performance on the girl child catch up project?
- iii. What is the effect of trainee characteristics on performance of the Girl Child Catch up project?
- iv. What is the relationship between trainer/trainee characteristics, managerial support, training design and project performance?

4. Research Design

The researcher used a descriptive case study design methodology. Both quantitative and qualitative approaches are used in analysis by the study. As regards the quantitative data, it included the statistical data, to assess and analyze the nature of relationship between study variables. Qualitative approach was employed to assess responses from respondents.

5. Target Population

The study population comprised of 50 International Education Exchange (IEE) staff directly involved in training in schools where the Girl Child Catch – up project is implemented.

6. Sample Design

The study used a census method given the small size of the target population.

7. Sampling Techniques

No sampling technique was used since the study used census method.

8. Data Collection

8.1 Data collection Instruments

A Likert scale questionnaire was used for data collection. Pallant (2005) argues that one should not just ask respondents whether they agree or disagree with a statement but use a Likert- type scale, which can range from strongly disagree to strongly agree. The questionnaire used a five point scale ranging from strongly disagree to strongly agree.

8.1.1 Primary Data

The primary data was collected through questionnaires to gather information. A questionnaire is an instrument that consists of a set of questions to be responded to by a group of people in order to provide information to help the researcher answer questions on the research topic.

8.1.2 Secondary data

This involved analysis of documents which have been prepared approved and filed for future reference. The researcher used some IEE records such as reports, minutes, concept papers and IEE website.

9. Data analysis

The data collected was processed and analyzed. This involved data coding, editing and tabulation especially quantitative data. The purpose of all this was to make the information clear and understandable for other people. Descriptive analysis techniques were used to complement statistical data in tables.

10. Data Analysis, Presentation of Findings

10.1 Demographic characteristics of Respondents

The researcher examines the characteristics of respondents in terms of sex, post/designation in the organization and education level attained.

Table 10.1
Descriptive statistics for Gender

	Frequency	Percent
Valid Male	27	61.4
Female	17	38.6
Total	44	100.0

Source: Primary Data

Findings from the frequency table 10.1.1 shows that the number of respondents who were female is 17 represented by a percentage of 38.6% of the total number of respondents. The male respondents numbered 27 individual representing 61.4% in terms of percentage. Six respondents did not return their questionnaire responses.

Table 10.2

Descriptive statistics for position

	Frequency	Percent
Valid Project manager	7	15.9
Teacher trainer	37	84.1
Total	44	100.0

Source: Primary Data

Findings from table 4.2.2 shows the respondents position on the project under study. The number of project managers was 7 including the project accountant and the country director. In terms of percentage, the project managers contributed 15.9% while the 37 teacher trainers contributed to 84.1 %.

Table 10.3

Descriptive statistics for level of Education

	Frequency	Percent
Valid Diploma	15	34.1
Degree	23	52.3
Post graduate	3	6.8
Other	3	6.8
Total	44	100.0

Source: Primary Data: The study findings in table 4.2.3 above shows that out of the total of 44 respondents 15 were diploma holders constituting 34.1% of the total number of respondents. The degree holders were 23 representing the largest proportion of respondents which is 52.3 %. There were 3 respondents with postgraduate education level while 3 respondents indicated other levels of education not specified in this study.

10.2. Analysis and Presentation of findings per research objective

The researcher ran a correlation analysis to establish the effect of the independent variables on the dependent variable and answer research objectives 1 -3. Table 4.3 below presents the correlation analysis to show the effect of trainer characteristics, peer support, trainee characteristics on performance on the girl child catch up project.

Table 10.4

Showing the Correlation analysis of Trainer characteristics, Managerial/Peer support, Trainee characteristics and performance

Variables	Trainer characteristics	Managerial/Peer support	Trainee characteristics	Performance
Trainer characteristics	1			
Managerial/Peer support	.015	1		
Trainee characteristics	.122	.022	1	
Performance	.111**	.104**	.129**	1

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data

10.2.1 Objective one: To examine the effect of trainer characteristics on performance on the girl child catch up project.

The results from table 4.3 show that trainer characteristics has a significant and positive effect on project performance ($r=.111^{**}$, $p\leq 0.01$). This implies that any positive change in trainer characteristics such as trainer experience, education, or trainer's training style is associated with positive changes in the performance of the girl child catch up project. Thus, if more experienced, trainers could address project targets better when assigned in the training and thus a possibility of better performance on the project. Also, the higher the trainer's level of education the better the chances to link trainings to project targets and thus the better the chances to improve performance. Lastly, the use of more relevant practical examples in the training could improve meeting specific targets on the project and thus possibly improving performance.

In support of the above findings of the study, some authors such as Punia and Kant (2013) argued that trainer characteristics such as trainer expertise can affect training effectiveness and subsequent performance. Punia and Kant (2013) also maintained that trainers must have good knowledge, experience, confidence and the ability to motivate trainees. This in the process will impact positively on the project performance as there are higher chances of addressing the project training needs and targets. In addition, findings from the study, Burke and Hutchins (2007) as cited in Wenzel and Cordery (2014) also found that practitioners found that those trainers with higher education and/or an association with a relevant peak body are more likely to possess knowledge and beliefs that are consistent with evidence based knowledge on training and transfer.

10.2.2 Objective two: To assess the effect of managerial/peer support on performance of the girl child catch up project.

The researcher used correlation analysis to answer the objective two of the study. The results as shown in table 4.3 show that peer support has a significant and positive effect on project performance ($r=.104^{**}$, $p\leq 0.01$). This implies that any positive change in peer/managerial support is associated with positive changes in the performance of the girl child catch up project. Hence, the more support provided by co-workers on the project, the better results will be achieved in meeting project targets thus improving performance on project. In addition, the more the trainees are held accountable in yielding results after training, the more the possibility of meeting project targets and better project performance. Lastly, if managers show support in trainings, this could help enhance meeting project targets thereby improving performance.

In relation to the above findings, many studies link supervisor support, encouragement, or overall involvement in the training process as affecting the trainee's perception, which in turn, increases the level of training transfer and subsequent performance (Wenzel and Cordery, 2014). In addition, Bozarth (2010) argued that sometimes learners return to their workplace and encounter barriers from managers in transforming their training into performance. However, she offers tips for overcoming these barriers and many of her suggestions involve engaging managers throughout the process of

training from development to evaluation. Similarly, Sarala (1993) as cited in Heli, Kaj, Koskinen, Pasi, and Porkka (2011) indicated that the efficiency of working life today is increasingly based on smooth and innovative co-operation of the parties working together. He maintains that an operating system can only be efficient if its parts are efficient. This calls for co-operation, planning, and realization of operation in teams, and furthermore, development of creativity and increase of efficiency

10.2.3 Objective three: To examine the effect of trainee/employee characteristics on performance on the girl child catch up project.

The results as indicated in table 4.3 above show that trainee characteristics have a significant and positive effect with project performance ($r=.129^{**}$, $p\leq 0.01$). This implies that any positive change in trainee characteristics is associated with positive changes in the performance of the girl child catch up project. Thus, more self motivated trainees strive to meet project targets and improve project performance after training. Also, trainee’s openness to learning experience in trainings helps enhance meeting project targets hence improving project performance. Lastly, the more trainees attach value to trainings offered on the project, the more it helps in meeting project targets.

In related studies, Colquitt and Simmering (1998) examined the effect of trait-like individual differences on the learning motivation of trainees as they progress through a training program. Basing on an expectancy-valence framework, it was found that individuals are motivated to learn when they perceive a relationship between effort and progress, and the attainable outcomes from this progress are valued. Hence, conscientiousness and learning orientation were positively correlated with expectancy, valence, and motivation to learn; Further analysis showed that those with a more positive profile such as high in both conscientiousness and learning goal orientation, were around 40% more motivated and performed about 30% better than those with a contrasting profile. Furthermore, Sitzmann and Ely (2011) in a study present a theoretical and meta-analytical review of the literature on self-regulated learning- the processes that enable individuals to guide their goal-directed activities throughout a learning experience to reach a desired level of performance. They identified 16 significant variables that constitute self-regulated learning, and meta-analytic findings from 430 studies (N = 90,380) and suggested that self-regulation constructs, goal level, persistence, effort, and self-drive were found to be the strongest predictors of learning during trainings; accounting for 17% of the variance in learning, after controlling for cognitive ability and pre-training knowledge.

10.2.4 Objective four: To find out the relationship between trainer/trainee characteristics, managerial/peer support and training design on project performance of the girl child catch up project.

The researcher analyzed this with the help of normal regression analysis to answer the objective of the study. The findings are shown in table 4.4 below.

Table 10.5

Normal Regression analysis results of Trainee characteristics, Peer support, Trainer characteristics, Training design and performance of the girl child catch up project

Model	R	R Square	Adjusted R Square	Significance
1	.123 ^a	.106	.022	.001

a. Predictors: (Constant), Trainee characteristics, Peer support, Trainer characteristics, Training design

Source: Primary Data

From table 4.4, results from the findings suggest that, trainee characteristics, peer support, trainer characteristics and training design accounts for 10.6% (R squared .106) variance in the performance of the girl child catch up project. Thus the model was significant in the prediction of performance of the girl child catch up project. In agreement with the above findings from the study, authors such as Shakira (2014) suggested that, there should be simultaneous endeavors to explore and study the various factors that affects training, right from the identification of the training needs, selection of suitable trainees, the modus operandi of the training process, the supportive climate provided to the trainees in the organizations the subsequent impact of the course on the trainees efficiency and its effect on performance. Besides, most of the surveyed literature in this study does not directly link employee training and project performance in terms of meeting project targets as a range of other factors may account for meeting project targets.

11. Conclusions and Recommendations

11.1 Conclusion

This study aimed to assess the effect of employee training on project performance by use of trainer characteristics, training design, trainee characteristics and managerial/peer support as predictors of performance. The first objective was to examine the effect of trainer characteristics on performance of the girl child catch up project. Findings show that trainer characteristics: trainer experience, trainer educational level and training methods have a significant and positive effect on project performance which implied that any positive change in trainer characteristics is associated with improvement in the performance of the girl child catch up project. The second objective was to examine the effect of managerial/peer support on performance of the girl child catch up project. Results indicate that managerial/peer support have a significant and positive effect on project performance which means that any positive change in co – worker and managerial support to trainees is associated with positive changes in the performance of the girl child catch up project.

The third objective was to explore the effect of trainee characteristics on performance on the girl child catch up project. The findings show that trainee characteristics have a significant and positive effect on project performance. Thus, any positive change in trainee characteristics: trainee self motivation and trainee openness to learning experience is associated with positive changes in the performance of the girl child catch up project.

Finally, objective four was to find out the relationship between trainer/trainee characteristics, managerial/ peer support, and training design on performance of the girl child catch up project. Results of regression suggest that trainee characteristics, peer support, trainer characteristics and training design accounts for 10.6% (R squared .106) variance in the performance of the girl child catch up project. Thus the model was found to be significant in the prediction of performance of the girl child catch up project.

11.2 Recommendations

With reference to findings of the study, the following are suggested recommendations that the girl child catch up project can focus on for further improvement in its performance.

- i. The study recommends that, it is crucial for the managerial team of the project to encourage and nurture an environment that promotes effective training of the trainees by giving the necessary support needed from management and peer employees in the training. This in turn will help improve on the project performance.
- ii. This study established the effect of employee training on project performance on the Girl Child Catch up Project of International Education Exchange but does not claim to have been exhaustive. Hence, this would be a good starting point for further research in related areas such as factors that affect training, right from the identification of the training needs, selection of suitable trainees, the modus operandi of the training process, the supportive climate provided to the trainees its effect on the performance of projects in different organizational set ups.

REFERENCES

- [1] Armstrong, M.. (2000) Understanding training. Human resource management practice (8th ed). London: Kogan pp.543.
- [2] Arthur, W. B. (2003) Effectiveness of training in organizations: A meta-analysis of design and evaluation features.” *Journal of Applied Psychology*, 88(2), pp. 234–245.
- [3] Banjo, R., Martina, B., & Deakins, D. (2014) Learning, innovation and firm performance: knowledge management in small firms *Knowledge Management Research & Practice* 12, pp. 443–453.
- [4] Becker, G. (1962) Investment in human capital: A theoretical analysis. *Journal of Political Economy*, 70(1), pp. 9–49.
- [5] Bell, B. & Kozlowski, S. (2008) Active learning: Effects of core training design elements on self-regulatory processes, learning, and adaptability. *Journal of Applied Psychology*, 93(2), pp. 29.
- [6] Bohlander.G, & Snell. S., (2007) Managing Human Resources (14thed). Mason OH: Thomson.
- [7] Bozarth, J. (2010) Nuts and Bolts: Getting Management Support for Training. *Learning Solutions Magazine*. Retrieved from <http://www.learningsolutionsmag.com/articles/484/nutsand-bolts-getting-management-support-for-training>, on August 2, 2014.
- [8] Brown, K., & Hyer, N. (2010) Managing projects: a team based approach. Boston MA: McGraw Hill.
- [9] Burke, L., & Hutchins, H. (2008) A study of best practices in training transfer and proposed Model of transfer. *Human Resource Development Quarterly*, 19(2), pp. 107–128.

- [10] Colquitt, J., & Simmering, M. (1998). Conscientiousness, goal orientation, and motivation to learn during the learning process: A longitudinal study *Journal of Applied Psychology*, 83(4), pp. 654.
- [11] Heli, A., Kaj, U., Koskinen, Pasi, L., & Porkka, (2011) The significance of formal training in project-based companies, *International Journal of Managing Projects in Business*, Vol. 4 Iss: 2, pp.257 – 273 DOI <http://dx.doi.org/10.1108/17538371111120234>.
- [12] Kerzner, H. (2010) Project management best practices (2nd ed). New Jersey: John Kelly & sons.
- [13] Kraiger, K., McLinden, D., & Casper, W. (2004) Collaborative planning for training impact *Human Resource Management*, 43(4), pp. 337-351.
- [14] Martocchio, J., & Baldwin, T. (1997) The evolution of strategic organizational training. In R.G. Ferris (Ed.), *Research in Personnel and Human Resource Management*, Vol. 15, pp. 1-46.
- [15] Maylor, H. (2010) Project management (4th ed.). Harlow: Pearson.
- [16] International Education Exchange, (2014) IEE, PLAN concept paper; the Girl child catch up project. Kigali.
- [17] Pallant, J. (2005) SPSS survival manual: A step by step guide to data analysis using SPSS for Windows (Version 12) Sydney: Allen & Unwin.
- [18] Project Management Institute, (2008) A Guide to the Project Management Body of Knowledge (PMBOK), Vol. 4, pp.36.
- [19] Punia, B., & Kant, S. (2013) A review of factors affecting training effectiveness vis a vis management implications and future research direction *International journal of advanced research in management science* vol 2 No. 1.
- [20] Salas, E., & Cannon-Bowers, J. (2000) The anatomy of team training In Tobias. S & Fletcher D. (Eds.), *Training and retraining: A handbook for business, industry, government and the military* pp. 312-335.
- [21] Shakila, P. (2014). A literature review and reports on training and development. The international Institute of Management Vol 3 issue 1 retrieved from <http://www.theijm.com/vol3issue1/2.327.pdf>
- [22] Sitzmann, T., & Ely, K. (2011) A meta-analysis of self-regulated learning in work-related training and educational attainment: What we know and where we need to go. *Psychological Bulletin*, 137 (3), pp. 421–442.
- [23] Thang, N. N., Quang, T., & Buyens, D. (2010) The relationship between training and firm performance: A literature review. *Research and Practice in Human Resource Management* 18(1), pp. 28-45.
- [24] Wenzel, R., & Cordery, J. (2014) *Training Transfer Research: A Manager’s Guide and Bibliography*. Australian Institute of Management – Western Australia, Perth.
- [25] Wright, P., & Geroy, G. (2001) Changing the mindset. *International Journal of Human Resource Management*, 12(4), pp. 586-600.
- [26] Zwick, T. (2006) The impact of training intensity on establishments productivity. *Labour Economics*, 11, pp. 715-740.