Measuring Return on Investment (ROI) in Training

Research Proposal

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ABSTRACT

Organizations are in a strong need of an efficient, reliable, and quick, method to measure the success of their training programs. The objective of this systematic review is to utilize numerous training measurement philosophies, review each method in detail, and recommend the most effective, dependable, and timely option. This study includes articles from multiple resources including various viewpoints. Much of the research will be conducted onsite at the research team's work/home office. Such data will be collected using various articles mostly from publication databases, but also from industry magazines, as well as internet search engines.

Because training's lasting effect can be based heavily in both the quantitative and qualitative areas, this project will include both methods in a mixed method type of study. Themes in the data will likely include a mix of different strategies, instead of one article resource proving to have the best method, it is probable a mix of article methods will prove to be the best option. Other themes will likely include best mathematical formulas for quantitative data, and emotional motivations found in qualitative data. It is probable qualitative data will be drawn from human resources published articles and financial or executive focused articles will provide much of the qualitative data. All of these items will complete a full process that organizations can utilize proving their training effectiveness.

INTRODUCTION

Every organization desires exceptional employee job performance. To accomplish this, effective training and development programs are critical. It is commonly believed, when team members are trained well, organizations are more productive and higher performing.

With changing demands in today's workforce, it is important organizations are rapidly changing and therefore desire a method to quickly measure the effectiveness of their training programs. While most agree, organizations with better trained employees result in team members increased sense of motivation and ownership in the organization, the problem has always been how to measure a training programs effectiveness. Very few studies have been conducted to prove one training measurable over another. Secondarily, there are many sceptics who may not be convinced of the effectiveness of training. The intent of this research project is to address both issues, first the most effective training performance measurement, and second the proven value training provides in organizations. The study will employ the use of many case studies, surveys, interviews, observations, and previous research projects.

There are so many different methods for measuring ROI of training, some with quantitative measures, some with qualitative, both formal and less formal, yet most of these have not matured to efficiency due to lack of resources of organizations. This study will help develop a structured and trustworthy process, backed by the diverse research articles compiled from the many resources. Additionally, executives will finally have the assurance that these measures are absolute to making sound key business decisions.

Definitions

ROI: ROI is an acronym for the return on investment. The idea behind ROI is to enable organizations to measure the success or failure of their training programs and determine its

value. Particularly for this research project, investment includes all training activities of an organization.

Training: Training is a process of influencing people to perform a certain skill or in a certain manner. In this case this study is measuring training and performance from an organization's perspective. Training will include all activities designed to enable or improve the performance of an employee or team member. Such training may include, instruction guides, onsite classroom style training, e-learning videos/tutorials, live webinars, forums, one on one meetings, and various other learning mechanisms.

Organizations: Organization can be a very board term. For this project an organization will include corporations. It will not include non-profit or educational institutions.

PROBLEM STATEMENT

Overview

Organizations continually fight a conflicting battle as they want to measure the impact of their training and align findings with business objectives. The conflict comes from the availability of many methods but the lack of data to prove each method is effective. As such, a study is required to determine the most beneficial method in terms of timeliness, dependability, usefulness, and data that appropriately drives business decisions.

Hypotheses

(1) With good training design, delivery, and various other factors, there is a positive return on investment for organizations.

(2) There is no best measure for return on investment as there are so many different variations within an organization, the criteria for measurement is varied as well.

Research Questions

(A) When good training principles have been applied, is there a positive Return on Investment (ROI)?

(B) What is the best method to measure the success or failure of a training program?

(C) Do better trained and developed employees create greater organizational results?

(D) How much time and what resources are required to deliver an effective training program and to measure its results?

(E) Is there a relationship of employee performance and training and developmental activities in an organization?

OBJECTIVES AND AIMS

Research Goals/Aim

Goal 1: Find effective measures/models to demonstrate the value of training to executive leadership teams.

Goal 2: Determine if training can be measured and prove positive effects in organizations with ROI.

Objectives

In order to achieve this aim, data will be collected from articles, grouped, analysed and formulated into supporting reasons for the conclusion. The below objectives will warrant the focus of this goal's achievement.

Objective 1: Determine if good training principles provide a positive Return on Investment (ROI) by reviewing previous research case studies, surveys, interviews, and documentation.

Objective 2: Identify the best method to measure the success or failure of a training program, providing detailed pros and cons of the recommendations.

Objective 3: Understand if better trained and developed employees create greater organizational results and what underlying factors influence this success.

Objective 4: Estimate the time and list resources required to measure a training program's results.

Objective 5: Measure employee performance and training and developmental activities, comparing similarities and differences, to assess the relationship and successful dependency of each.

BACKGROUND AND SIGNIFICANCE

Literature Review

Of the many articles available on the topic of Return on Investment for Training programs, the literature has demonstrated it is extremely diverse an unagreeable. As stated by many of the authors, there are several widespread variables contributing to the Return on Investment of organizations (Pate, 2000; Munoz, 2000; Griffin, 2011). The literature generally consists of three main areas. First what are the benefits of training that can be measurable? Second, does a return on investment for training truly exist, and third, if there is a return, what is the best method to measure it? These are the three themes available from multiple sources. Upon further review of all compiled content at once, it is our hope, the best

practice for measuring a return on investment in training can be determined. The various articles from this proposed study are located from the following databases; Proquest.com, Scopus, Google Scholar, Academic Search Premier, Education Full text, Business Source Premier, The Training Magazine Network, The Society for Human Resources Management (SHRM), eLearning Guild, and The Association for Talent Development (ATD). All of these resources will prove valuable to gather all ideas and answer the three themes as described in more detail below.

What are the measurable benefits of training?

Effectively measuring training ROI is a critical need for organizations, otherwise organizations will never know if their efforts are worthwhile, if they are utilizing funds and time appropriately, if the training is creating income, or how and if organizations can improve their performance. One area that is not fully utilized is the participation of stakeholders (McAliney, 2009; Griffin, 2011). Since stakeholders have a key financial impact on training decisions, perhaps their involvement can help us determine what the measurable benefits should include. Executives will then drive the data to know if training costs are justified (Rowden, 2001). According to Van Brakel, measuring training is often taken too lightly (Van Brakel, 2002) and companies who measure training are much better off in the long run (Brachle and Schmidt, 2004; Bartel, 2002). These are the key components needed from studies, that will provide benefits to be measured in training and provide ideas for how it can be measured.

Can it be proven a return on investment for training truly exists?

When exploring if training has a positive effect on organizations there are many factors to consider. First if training did not exist, could lost revenue be calculated based on the lack of training (Aksu and Yildiz, 2011; Aksu, A., & Yıldız, S. 2011)? Some might say measuring the return on investment is not valuable, is a poor use of time (Nemec, 2018) and

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should be eliminated entirely. Yet another viewpoint indicates training shouldn't be measured, because training's purpose is to show employees the organization cares about their growth (Pentilla, 2004; Brown, 2001). Rowden goes as far as saying several methods can be used to justify all training expenses (Rowden, 2001). As the varied and conflicting views are presented, it becomes entirely possible, the concept of training ROI could be far too underdeveloped to be used adequately at this time (Griffin, 2011). This topic leads to confusion for learning professionals and each of the above questions/thoughts are a key component that must be explored further in the available research to prove a Return on Investment for training truly exists and can be measured.

What is the best procedure/method to measure Return on Investment?

While the final study will include many additional articles, a small selection used in this proposal already show a large, diverse multitude of differing concepts for measuring the impact of training. In fact, it is easy for a person to become overwhelmed by the many resources and methods available, which further justifies the need for the study. The numerous recommendations include evaluations, surveys, (Griffin, 2011), time value of money calculations, seasonal patterns, and data collection, (Munoz, 2000), as well as isolating effects (Rowden, 2001), qualitative and survey methods (Guerci and Vinante, 2011), adapted Kirkpatrick models to include distinct measurable areas such as motivation, behaviours that are learned or applied, business impact, and risk management (Jasson and Govendar, 2017), or even a combination of multiple models (Elliott, 2009). With all of these diverse options available one is certainly to be confused and unsure of what to do next. Yet it may not be feasible for most organizations based on the resources, time, and cost, etc. required so this leads to ideas about using quick cost formulas (Kaufman and Watkins, 1996; Rowden, 2001). However, it's easy to question if satisfaction can really be measured in a cost formula (Brown, 2001; Kaufman and Watkins, 1996; Rowden, 1998; Rowden, 2001). Furthermore, it

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is possible training returns can be measured informally with performance benefits and nonquantitative measures and that might be sufficient enough for these organizations who are less equipped (Pangarkar and Kirkwood, 2015).

Thinking more deeply about the various methods available, one begins to formulate questions. For example, within each method will the type of training change the method that should be used? Such as with soft skill versus technical training, is there a different measurement method for the different training environments or content (Pate, 2000)? In the end, is it all based on the individual circumstances of an organization? This is why it's important to review the many methods, to determine if one is more effective than the other. Without a thorough study to provide a best practice recommendation with justifiable reasoning for the selection, all of the incredible information is cumbersome and almost useless to learning professionals.

The Gap

After examining the literature, the need for measuring the return on investment, the measurement factors, as well as the best strategy to capture this critical data exposed a large gap. When this research can be fully completed, only then will organizations be able to make tremendous improvements in their training programs, make better business decisions, and drive better results for both the organization and the individual employee.

RESEARCH DESIGN AND METHODS

Overview

Using a systematic review of many qualitative and quantitative articles will formulize the analysis. Due to the numerous methods and previous research articles available on training ROI, a systematic review will compile all the articles and data into a best practice

and reasoning summary, allowing learning professionals to make the best choice in measuring their training programs. Given that meta-analysis is utilized in conjunction with medical and consistent models, (Gopalakrishnan, S., & Ganeshkumar, P. 2013), this study will not be suited to a meta-analysis study. In addition, because of the inconsistency of methods, large amount of qualitative data, varied sizes of organizations, and various other factors a meta-analysis is not likely to be used in the study, however statistics will be kept for other purpose and possible meta-analysis if possible.

Characteristics of the study populations, comparisons, participants demographics, and other key findings as available will be reported in addition to both quantitative and qualitative methods used by all the articles. The primary databases will include Proquest.com, Scopus, Google Scholar, Academic Search Premier, Education Full text, Business Source Premier, The Training Magazine Network, the Society for Human Resources Management (SHRM), eLearning Guild, and the Association for Talent Development (ATD), with an expectation of over 300 articles. Key search words can be found in the appendix of this proposal. If gaps are found in the data, authors will be contacted to see if additional information is available. The articles will focus on corporations of various sizes and each corporation within the study must have a training program within the US. Articles will be tracked on a spreadsheet with demographics such as geographic location, corporation size, date of the article, and ROI procedure.

Scope of study

This review will include viewpoints from training participants, team managers, executives, researchers, training designers, and training content facilitators, as well as other training professionals. The participants will be included because they participant in training activities on various levels from receiving training to implementing practices. This will

enable a full picture of the training and development activities in the organization and its overall effects.

Articles will be uploaded into a Zotero, a research tool. Screening will be conducted based on the abstracts and a quick skim of the full content to determine the relevant articles for further use in the study. Eligibility will focus on mostly published work; however unpublished work will also be considered such as private/public blogs. Once relevant articles have been identified, reference lists, common authors, assorted keywords, of each article will be explored to further gather content. All reviewers will follow set guidelines, including review of questionable items with the project manager.

Theoretical standpoint(s)

There is a relationship between corporate training and organizational performance, and therefore it is measurable. Different organizations hold different values and measuring training may vary due to the nature of the organization.

Timeframe

The expected timeframe of this study is approximately 15 months. This timeframe is outlined below.

- During week 1, all staff/research participants will undergo training on guidelines, objectives, importance of accuracy, and procedures. They will then complete many practice activities to ensure correctness.
- Months one to three months will review, select, and group the data into topics based on the themes displayed in the literature review as well as newly developed themes.

- From four to five months the data will be analysed determining what further interviews or information is required.

- Months six to nine months will provide time to clean all data for statistic and narrative analysis, as well as gather additional information as needed.

- Finally, over months ten to fifteen, all data will be fully analysed, and the report of findings will be finalized.

Ethics

Ethical approval is likely not required as the review consists of already published works. However, a final review will be negated by an external nonbiased firm, to review unpublished data as well as review other items in the report. All organization or participant names will not be reported in the research documents. The research findings will be made available to the public.

Interpretation

Coding will be done by hand initially. For the numerical data analysis, a SPSS database will be used. Personal information will be included such as age, gender, salary, job impact, training courses attended, assessment tests, turnover, organization, department, etc. will be used to make important mathematical and statistical calculations. ROI will be calculated using various models and mathematical methods.

STRENGTHS AND WEAKNESSES/LIMITATIONS

Strengths

The assorted data from the systematic review will provide abundant structured viewpoints, in depth case studies, references, and sources. Using various articles from multiple studies, bias will be reduced (Gopalakrishnan, S., & Ganeshkumar, P. 2013). The

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biggest and most key strength of this study is the powerful information it will provide. Organizations are constantly asking how they can quickly and efficiently measure the effects of their training, yet the many methods are always confusing, too timely, not proven, or lacking value. Since previous studies, as far as is known, have not compared methods, this study will prove incredibly valuable.

Weaknesses/Limitations

There is one major limitation area, which involves the available article data. While there have been many studies on the ROI of training, there will be a lack of specific details in those previous studies. There may also be inconsistency in the research samples provided between the different authors, research objectives, tools used, and styles.

SIGNIFICANCE OF THE STUDY

Organization executives are desperately craving a valid, proven, and time effective return on investment for training measurement. The findings of this study will provide organizations with the assured information to quickly measure training effectiveness, improve future training, manage training more wisely, and make better business decisions. In turn, this will dynamically contribute to improved production for organizations, which could include personal employee fulfilment, health/morale, medical advancements, new and innovative products, and economic growth.

BUDGET

a. Entry Level Administrative Assistant: $65,000/15 months ($40,000/year with benefits). Under the direction of the Research project manager the assistant will search and screen for articles, enter data into the various databases, and provide other assistance as needed.

2. PART-TIME Statistician/Research Assistant Research assistant: 1 day per week for months 6-12, at $10,000 ($100,000/year no benefits)

   a. The Statistician will provide correct statistical analysis and conclusions.

3. Research Project Manager: $115,000 ($100,000/year with benefits)

   a. The manager will manage the entire project, keep the timelines on task, ensure accuracy of the data, monitor/evaluate, and supply expertise in research procedures and training data.

4. Software program:System for the Unified Management, Assessment and Review of Information (SUMARI): $30/year, equals up to $60 total for 15 months.

   a. The system provides many functions including import of search results, review of qualitative, quantitative, textual, and economic evidence. It will include/exclude references as needed and synthesize data.

5. Equipment, supplies/other:

   a. 3 computers at $600 each, $1,800 total

   b. Paper, ink cartridges, writing utensils, etc. estimated at $2,000 total for 15 months.

   c. Overhead costs $10,000

The total estimated budget equivalates to $203,860 for a 15-month project.

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APPENDIX

Appendix 1: Search Criteria

1. Search terms in research will include:

- return on investment training
- training evaluation practices
- how do you know the value and impact of corporate training?
- why training is not valuable
- measuring training
- assessing effective training programs

2. Searches delimiters to not include:

- educational institutions

3. alternative words substituted above:

- train: teach, learning, professional development