

8-5-2013

# The Impact and Implementation of Learning Intervention on Management and Organizational Practice in a Non-Profit Setting

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**The Impact and Implementation of Learning Intervention on Management and  
Organizational Practice in a Non-Profit Setting**

BY

Keisha Liggett - Nichols

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree

Of

Executive Doctorate in Business

In the Robinson College of Business

Of

Georgia State University

GEORGIA STATE UNIVERSITY  
ROBINSON COLLEGE OF BUSINESS  
2013

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## ACCEPTANCE

This dissertation was prepared under the direction of the Keisha Liggett - Nichols Dissertation Committee. It has been approved and accepted by all members of that committee, and it has been accepted in partial fulfillment of the requirements for the degree of Executive Doctorate in Business in the J. Mack Robinson College of Business of Georgia State University.

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## ABSTRACT

### The Impact and Implementation of Learning Intervention on Management and Organizational Practice in a Non-Profit Setting

BY

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2013

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The intent of this research is to explore the concepts of organizational learning as it relates to “double loop” learning. Specifically, this research will test the concepts of double loop theory proposed by Argyris, (1976) in a seminal piece, and the paradigm of Evidence-based management (EBM) in the context of a non-profit organization. The paper will review the transition from a single loop learning organization to a double loop learning organization utilizing EBM as a learning intervention for change. The non-profit organization used in this research is significant as it is a *monitoring agency*; an intermediary between Public Administration, counties, and private agencies. The paper will demonstrate through a single case study the limitations of single loop learning, and how interventions or processes that lead to organizational learning could facilitate transitioning to a double loop learning organization. The study expects to contribute to the literature by highlighting the value of double loop learning and the use of EBM as a learning intervention mechanism. This study will also underscore how double loop learning and EBM can add value to organizational processes.

## INTRODUCTION

In most organizations, the potential role of learning by the organization as a whole - based on feedback from management, the client base, or process outcomes - is not a primary or significant focus. Most organizations have set or chosen goals, values, plans and objectives that are operationalized and rarely questioned about or revisited about their continued effectiveness. Researchers refer to this approach as single loop learning. A significant and rare alternative to this practice is to question the objectives, goals, and other governing elements and subject them to critical scrutiny. Researchers refer to this approach as double loop learning. Literature supports the double loop learning model as a preferable alternative to understanding organizational learning because it provides greater feedback and leads to more effective decision making. However, research studies that have examined the benefits of double loop learning within a monitoring organization are limited. Therefore, it would be useful to study the limitations of single loop learning and the benefits of double loop learning (Argyris, 1976). The purpose of this study is to examine how learning interventions and processes facilitate organizational transition from single loop learning to double loop learning and the benefits that accrue from such a transition. The study will use EBM or Evidence-based management as a learning intervention mechanism. EBM refers to translating principles that are based on best evidence of organizational practices and processes (Sackett et al., 2000).

## LITERATURE REVIEW

Argyris (1976) stated that, because of structural complexity, organizational learning can be impaired, making the transition to double loop learning difficult. Argyris and Schon (1978) described the organizational learning concept of loop learning as a means to demonstrate how organizational members, acting as agents for organizational inquiry, assist organizational learning. Specifically, they suggested that learning occurs when: 1) work processes are sufficient to facilitate organizational strategies (single loop), 2) the current organizational thoughts about organizational strategy effectiveness are valid (double loop), and 3) studying the effectiveness of organizational learning structures and processes is impactful to continued organizational learning (triple loop). Zollo and Winter (2002) suggest the need for firms to develop organizational learning capability, and understand that they must work beyond processes that are sufficient to facilitate organizational strategies. This kind of organizational learning is a significant factor for sustainable competitive advantage (Easterby-Smith, 1995). Although organizational learning is primarily understood as a means to improve an organization's performance, many organizations fail to develop organizational learning properly (Senge, 1990; Senge et al., 1994). It has even been argued that the inability to learn is the reason that most organizations fail over time (Senge, 1990).

It is essential that the concept of single loop learning be understood in order to appreciate double loop learning. Single loop learning is a means to gain effectiveness through strategic goals and objectives. It allows for the identification and possible correction of errors by modifying behaviors so that the error does not resurface.

Organizational performance occurs as a result of values and norms within an

organization. However, performance may be impaired without consideration of further insight, (such as theories, underlying assumptions, arguments) or change to organizational structure, culture, organizational systems or theories-in-use (Argyris and Schon, 1978; Senge et al., 1994; Swieringa and Wierdsma, 1992). The use of single loop learning may lead to repetitive and routine results, because there is no desire to question the status quo, and the result of this behavior is adaption. As a consequence, there is only an improvement of existing competences and current operating procedures, essentially maintaining the status quo (Lant and Mezias, 1992; Swieringa and Wierdsma, 1992).

In contrast to single loop learning, in this study, “double loop learning” is used in conjunction with EBM. EBM is used as a learning intervention. It is used to assist with learning achieved at the level of rules, insights and principles, or learning that results in changes in the theory-in-use and strategies (Argyris and Schon, 1978). This level of learning moves beyond the premise of single loop learning and encourages a feedback loop for understanding.

Double loop learning is similar to single loop learning, allowing for errors to be detected and corrected. However, the significant difference between single loop learning and double loop learning is that there is a connection of those errors to the organizational values and norms, changing values (from the theory-in-use), strategies and assumptions (Argyris and Schon, 1996). Activities reinforcing the status quo are “unlearned” and a new frame of reference and interpretive programs of action are developed (Fiol and Lyles, 1985). This is done through program (process analysis) and outcome assessment as well as determining if these factors are aligned with goals and objectives of the organization. This goes beyond learning to perform existing routines more efficiently

(Argyris and Schon, 1996; Lant and Mezias, 1992; Senge, 1990). Learning becomes a cyclical process needed to ensure effectiveness and efficiency, as well as innovation. This kind of learning creates a culture that is forgiving of mistakes, allows for systems thinking, and promotes thought processes for problem resolution that go beyond the standard answers to questions (Argyris, 1990; Lant and Mezias, 1992; Swieringa and Wierdsma, 1992).

Argyris and Schon (1996), suggest that, in general, transitioning from a single loop learning organization to a double loop learning organization requires a model of organizational learning to decrease the potential inhibitions to double loop learning by members of an organization. The model is considered as a model of intervention. The model of intervention used in this study is Evidence- based management. The comprehensive nature of this model is discussed later.

An organization that practices single loop learning is highly unlikely to change its learning systems without intervention for change. The intervention requires altering governing elements, norms and assumptions. This would also require focusing on double loop learning characteristics. These characteristics are absent in single loop learning organizations. This is because single loop learning organizations perceive the organization as it currently exists and does not focus on learning (Argyris and Schon, 1996).

## **ORGANIZATIONAL LEARNING IN THE NON-PROFIT ORGANIZATION**

Organizational learning is a significant competency required in ever-changing and competitive environments (Armstrong & Foley, 2003). Organizations in the non-profit sector confront significant volatility. Non-profits face volatility in the form of declining public trust, increasing costs, sustainability and expansion of core programming, lack of capacity to provide quality services, and a difficulty in converting innovative ideas into effective results. This is even more so in the case of non-profits focusing on child welfare. There is tremendous pressure to focus resources on programs with demonstrated results to continue to secure funding. Non-profit agencies focusing on child welfare must also provide evidence to monitoring organizations such as Federal Child and Family Services to ensure state child welfare agency practices conform to federal child welfare requirements. In addition, many political representatives are in pursuit of information about whether the programs they fund work. Also, foundations and other funders challenge grantees to employ evidence-based program models and practices. Consequently, child welfare agencies must demonstrate that their programs are of high quality and have the ability to be successful in producing intended outcomes and effectiveness.

The aforementioned concerns demand that non-profit organizations acquire the competency to learn more effectively so that they can successfully deal with the many challenges that they face. Research has in fact revealed that there are great benefits in incorporating learning systems into practice within non-profit organizations (Prugsamatz, 2010).



There may be a uniquely positive benefit to incorporating double loop learning within non-profit organizations. Double loop learning will demand that organizations challenge their assumptions and values (Argyris, 1976). Unlike single loop theory, double loop learning theory focuses on solving complex and ill-structured problems. While the usefulness and constraints of single loop and double loop learning theories have been examined in the context of for-profit organizations, there are very few studies that examined these theories in the context of non-profit organizations. However, in a published study on double loop learning effects on non-profit organizations, there is an indication that only when there is the likelihood of a crisis, do organizations rethink their experiences and learn so that they can prevent a similar future crisis. The crises can arise in the form of external factors, such as funding source concerns or internal factors such as managerial decisions. Today, the turbulent economic environment is a potential crisis for non-profit organizations (Mano, 2010). The unsettled economic environment demands that non-profits such as state child welfare agencies focus their resources on programming with demonstrated results. This crisis is exacerbated by the fact that foundations and other donors are now challenging the non-profits to find workable solutions to very new problems. Crisis situations prompt non-profits to revisit these past instances, and how they were managed, and determine whether the organization has the competency to handle the same, similar or future crisis situations.

The impact of economic downturn on non-profit revenues and accountability to donors imply that organizations must grow from the static single loop learning to more organic and evolving double loop learning, however challenging such a transition might be. Learning interventions such as EBM, is one of the approaches through which

organizations can make that transition with a little more ease and make the organization, a learning organization. Recent literature defines EBM as the process by which an organization translates principles derived from best evidence into organizational practices and processes (Sackett et al., 2000; Rousseau, 2006).

## **EVIDENCE-BASED MANAGEMENT**

As previously indicated, Evidence-based management (EBM) is a process by which an organization translates principles derived from best evidence into organizational practices and processes (Sackett et al., 2000; Rousseau, 2006). The concept is based in empiricism. Empiricism emphasizes the role of experience and evidence (a source of knowledge acquired by experimentation or observation), especially sensory experience, in the formation of ideas over the notion of innate ideas or organization traditions. The framework of Evidence-based management is based in the scientific method and applying it to evaluate practices. Although this can be an effective framework, it must be coupled with a consideration for the behavioral aspects of an organization that are essential to effective management practices, (these behavioral aspects are considered in double loop learning through governing elements such as beliefs and assumptions) (Walshe & Rundall, 1999; Rousseau, 2005; 2006; Pfeffer & Sutton, 2001). EBM, does however, consider the values and the expectations of the organization's clients or customers (Sackett et al., 2000; Rousseau, 2006). The term "evidence-based" (as well as the term "evidence-informed") are defined differently, depending on the organizational context in which the terms are used. The definition is further influenced by the type of organization in which it is used, e.g., a for profit organization as compared to a non-profit organization. This study will focus on the use of EBM in a non-profit organization. The mission and vision of a non-profit organization could influence the definition of EBM.

The definitions, described below, point to how the context of a non-profit organization can influence the definition of EBM. The concept of evidence-based can be applied within a non-profit organization specifically to practices and programming. These

definitions also demonstrate that there is a distinct difference between evidence-based practices and programming versus evidence-informed practices. The definition of evidence-informed offers a broader based definition allowing a level of intersubjectivity; simply indicating an agreement among people on a given set of meanings or definition of a situation. These meanings are used as an everyday resource to gain understanding to situations, social issues or populations of impact. The definitions also show some commonality, e.g., supported by scientific research or other rational processes. These examples are descriptors of types of best evidence.

*Evidence-based practices are approaches to prevention or treatment that are validated by some form of documented scientific evidence. This includes findings established through controlled clinical studies, but other methods of establishing evidence are valid as well.*

*Evidence-based programs use a defined curriculum or set of services that, when implemented with fidelity as a whole, has been validated by some form of scientific evidence. Evidence-based practices and programs may be described as "supported" or "well-supported", depending on the strength of the research design.*

*Evidence-informed practices use the best available research and practice knowledge to guide program design and implementation. This informed practice allows for innovation while incorporating the lessons learned from the existing research literature. Ideally, evidence-based and evidence-informed programs and*

*practices should be responsive to families' cultural backgrounds, community values, and individual preferences.*

Execution of Evidence-based management follows a series of steps that include the following: 1) becoming motivated to apply evidence-based practice, 2) converting information needs into well formulated answerable questions, 3) tracking down the best evidence with which to answer the questions, 4) critically appraising the evidence for its validity and applicability to clinical practice, 5) applying the results of this evidence appraisal to policy and practice, 6) evaluating performance, and 7) teaching others to do the same (Sackett et al., 1997). These steps indicate that, with the implementation of EBM, managers can learn to enhance the quality and effectiveness of organizational decisions. The basic premise of EBM is that the prescribed steps or processes, if followed properly, would discourage the professional decisions of managers from being influenced by personal experiences or just anecdotal evidence and base them more on the best available evidence as described by EBM. This also applies to implementation at all levels of learning in an organization, (organization, team and individual). There is an increase in the ability of members to execute effective and efficient practices and develop into experts through the use of determined best evidence (Sackett et al., 1997).

The aforementioned steps and concepts parallel with double loop learning in a few ways. There is a critical factor however, that is not considered in Evidence-based management. This is a consideration for governing elements. As mentioned previously, these governing elements are the behavioral aspects of the double loop learning process that are critical to effective management within an organization. Governing elements are those things that have an influence on organizational outcomes and may pose certain

limitations on how you achieve those outcomes. Governing elements also reflect the values of an organization. The values of an organization in turn have an implication for ethical decisions. A consideration for this particular factor is certainly key when considering utilization of double loop learning and using EBM as a learning intervention.

How well the organization (at all levels; organization, team and individual), understands the governing elements that exist within an organization has a direct impact to the organizations action strategy. The action strategy includes organizational goals, values and techniques considered to achieve desired organizational outcomes. This relates directly to steps 2) converting information needs into well formulated answerable questions, 3) tracking down the best evidence with which to answer the questions, 4) critically appraising the evidence for its validity and applicability to clinical practice, within EBM. These steps capture critical elements of single loop learning, but begin the transition to double loop learning. Here the organizations set or chosen goals, values, plans and objectives that are operationalized, (single loop learning) are questioned and revisited to determine their continued effectiveness (double loop learning). In addition, organizational learning is heightened with the use of best evidence to answer questions developed from the single loop learning process. Managers are forced to not only critically appraise best evidence, but they are also required to evaluate goals values, plans and objectives to understand applicability to practice and evaluate practice validity. The transition here is critical as the close of the cyclical nature of double loop learning occurs as well as the final steps of EBM. Double loop learning requires a review of outcomes and performance. If the outcome of the action strategy does not align with organizational goals, a consideration for the effectiveness of organizational performance is warranted. If

it is determined that there is a failure in action strategies, double loop learning suggests returning to governing elements for a review and reconsideration. If governing elements are reconsidered, new or modified action strategies are warranted. This aligns with steps 5) applying the results of this evidence appraisal to policy and practice, 6) evaluating performance, and 7) teaching others to do the same of EBM (Sackett et al., 1997).

Although it is implicit in double loop learning, codification of practice modification is often the result of a modification of action strategy within an organization. Training and teaching others to do the same is also often the result of a modification to action strategy.

Evidence-based management is useful to non-profit organizations due to the implied impact on improved managerial decision making. Managers, (as well as the organization, team and individuals), have a significant impact on organization performance through decisions. It is surmised that if poor information is available to managers and stakeholders regarding organizational process, practices or outcomes, organizational strategic alignment with goals and objectives may be misinterpreted. These concerns have an impact on organizational learning and make the learning process difficult. Evidence-based management supports efficacious and continuous learning for both managers and all levels of the organization (organization, team and individual). Improved decision making based on systematic causal knowledge, (learning through a connection of a series of facts, beliefs and knowledge through an underlying series of causal chains) and supplemented by practical expertise leads to successful outcomes for the organization as well as stakeholders (the public and Public Administration). This provides organizational legitimacy and serves as strong justification for organizational processes and practices (Goodman & Rousseau, 2004; Rucci, Kirn & Quinn, 1998). The

aforementioned suggests that organizations that implement Evidence-based management have a stronger competitive advantage.

Evidence-based management is useful to non-profit organizations, specifically child welfare organizations. Child welfare organizations are challenged to provide program outcomes data to Public Administration, such as Federal Child and Family Services. These organizations are increasingly aware of the need for non-profit child welfare organizations to focus their resources on programs that have proven results. There is especially a need for achieving outcomes as measured by organizations such as Federal Child and Family Services. In order to provide evidence that non-profit child welfare agency services achieve positive outcomes, the organization, (at all levels), must understand how Evidence-based management applies to child welfare. There must also be an understanding that the application of the prescribed steps or processes of Evidence-based management demand that an organization learn. The organization must have the ability to gain learning through experimentation, observation and analysis. There must be a willingness to learn from both the success of the organization as well as the failure of the organization (McGill et al., 1992). The organization must have a level of adaptability or adaptive learning. In order to have a level of adaptability organizations must be willing to experiment or constantly operate in a state of addressing organizational structure, design and processes. Hedberg et al. (1977) argue that operating in this mode is efficacious, perhaps even required, for survival in fast changing and unpredictable environments.



## **LEARNING AND ADAPTING ORGANIZATIONS – DOUBLE LOOP THEORY**

It would seem that a non-profit organization that is willing to experiment or that is constantly in a state of addressing organizational structure, design and processes would be desirable due to the level of organizational learning that is promoted. The non-profit organization can learn a lot about a variety of design features for programming, organization structure as well as potentially foster the ability to remain flexible. However, this adaptive learning or single loop learning has a focus solely on solving organizational problems that presently exist and does not consider organizational learning behaviors. The kind of constant state of change described, in turn, demands that non-profits grow from adaptable or single loop learning organizations to more organic and evolving double loop learning organizations, that is become more generative adaptive organizations (Senge, 1990). An adaptive organization is an organization that is able to sense changes to the environment, both internal and external to the organization and adapt accordingly. Organizational learning is a distinct characteristic of an adaptive organization. Non-profits, if they were to be perceived as adaptive organizations, must demonstrate that they are capable of dealing with unpredictable and uncertain environmental issues. An example of unpredictable and uncertain environmental issue is a depressed economic environment that may impact fiscal management. Another is demands of Public Administration to demonstrate efficacy and fidelity in programming through outcomes, to maintain or increase funding. Non-profits can show that they are adaptive when they demonstrate a focus on incremental improvements. However, these improvements are often based on pass levels of success. These organizations do not question the fundamental assumptions of the way that work is done. There is a significant paradigm

shift within a learning organization that must occur to transition to generative adaptability or double loop learning.

In general, a learning organization will make use of three distinctive concepts: 1) organizational learning 2) organizational knowledge 3) and knowledge management (Armstrong and Foley, 2003; Crites et al., 2009) These are three implicit concepts to double loop learning, (as well as EBM). Organizational knowledge is internal and external knowledge that is a product of the learning process. Knowledge management is the control of organizational structures and processes to facilitate knowledge sharing throughout the organization. Organizational learning is the process of transforming external market or field information into practical and contextual knowledge that will inform practice throughout the organization. A successful organization will incorporate all three of these characteristics (Crites et al., 2009).

A significant indicator of an adaptive and learning organization is one that would apply a systematic quality movement, much like double loop learning and the coupled use of Evidence-based management. The use of such processes implies more rational managerial decisions and verifiable practices. Kitson et al. (1998) recommend that, when examining whether an organization is adaptive and learning, to use both Evidence-based management and learning organizational frameworks such as double loop learning.

Learning organizational frameworks point to two significant learning processes, single loop learning and double loop learning. These two processes, together, can be called the loop learning process. Researchers Argyris and Schon (1996), describe the loop learning process as a means to demonstrate how members of an organization, who question organizational processes and practices, may assist the learning process on three cognitive

levels. These three levels are described as follows: 1) learning and understanding if current work processes are satisfactory to implement desired strategies ( single loop learning), 2) learning if the current organizational assumptions about the effectiveness of the strategy are valid ( double loop learning) and, 3) analyzing the effectiveness of organizational learning structures and processes ( deuterio – loop learning). In this study we will focus on levels 1 and 2 specific to a monitoring non-profit organization.

Unfortunately the first cognitive level; learning and understanding if current work processes are satisfactory to implement desired strategies are not enough for a non-profit organization to have strong performance and competitive advantage. Senge (1990) indicates that this is a current or accustomed view of an organization. In order for non-profits to experience organizational learning and for non-profit managers to facilitate continued learning within the organization, the organization must serve as a steward for learning and non-profit managers must serve as teachers, designers and promoters of learning. There must be the ability to build upon a shared mission and vision for the organization and challenge existing mental models (Senge 1990). These mental models can help shape behavior and set an approach for solving organizational problems.

Therefore, the non-profit organization must seek to achieve generative adaptability through the second cognitive level; learning if the current organizational assumptions about the effectiveness of the strategy are valid (double loop learning). Achieving this level within the non-profit has a focus on emphasizing continuous experimentation and feedback in an ongoing cycle of analysis of the way that the organization goes about defining and solving problems. This continuous and generative adaptability requires a paradigm shift within the organization.

The first two cognitive levels of the learning framework draw a direct parallel to the key steps in the Evidence-based management process. These key steps serve the purpose of creating knowledge by the individual to the organization and validating this knowledge through applied strategy or processes (Crites et al., 2009; Caldwell, 2012; Senge, 1994).

## **EVIDENCE-BASED MANAGEMENT – THE CHALLENGES**

There are significant challenges to implementing EBM, particularly in a non-profit child welfare organization. EBM implementation is a complex process and is often plagued by unexpected events and challenges. Most importantly, the organization must have a strong learning environment. A strong learning environment is warranted to understand how to obtain best evidence as well as understand applicability. Obtaining the best evidence to support decisions should be made with data and information that is obtained after proper research for its relevance and reliability. As explicated previously, the definition of Evidence-based management is contextual and often specific to the organization in which it is used. The organization must determine how the evidence will be retrieved and how the evidence will be utilized to possibly impact practice and organizational policies. This has presented an issue with regard to implementation of evidence management from organization to organization. There are very few exemplars of organization implementation that offer a level of consistency with regard to best evidence and utilization. Therefore, managers of organizations are left with a systematic framework, but are required to determine how respective organizational processes are currently defined in the context of Evidence-based management and the organization as well as determine the gaps that exist in the execution of action strategy, outcomes and governing elements.

Prior studies have identified five foundational requirements related to the processes of obtaining evidence: (1) agreement by the organization on the nature of the evidence, (2) a strategic approach to the creation of evidence and the development of a cumulative knowledge base, (3) an effective means of disseminating knowledge and

information together with the development of way of accessing the knowledge and information, (4) strong initiatives to motivate and increase the use of evidence in both policy and practice, and (5) various efforts at the organizational level to support the practice (Davides & Nutley, 2001; Kitson et. al, 118). A key factor in Evidence-based management approaches is the need to understand how to question a program or process in such a way that it promotes an understanding of the type of evidence needed. The kind of questions asked will guide the research for best evidence.

Another approach organizations can use to identify the ‘right’ evidence is through researching organizational knowledge and practitioner knowledge. Often the primary resource for such an effort is organizational policies and procedures (best practices, guidelines). If policies and procedures are not managed appropriately, they would not serve as acceptable resources. A second type of evidence is provided by organizational knowledge and practitioners’ knowledge (e.g., anecdotal stories, personal experiences and more). This type of evidence may not be codified and reflected in a formalized manner. Nevertheless, such evidence is useful for organizational learning and decision making that is integral to Evidence-based management.

## **THE NON-PROFIT MONITORING ORGANIZATION**

From a process-related perspective, an organization is viewed as an entity that is in a constant state of being (reorganized), and the focus is on the organization as a set of tasks or actions (defined work or working functional processes or procedures). Therefore a monitoring organization, from the same process related perspective, is an organization that has the added characteristic of the awareness or state of a system. It is an organization that is required to oversee, supervise or regulate (another organization). In this study, the focus is on a monitoring organization that has the role of facilitating and executing programs, tasks, or services (actions) that are delivered to other organizations (other non-profit agencies). The monitoring organization is charged with ensuring that the programs delivered are executed by the other organizations effectively and efficiently as well as with some level of fidelity. The purpose and hierarchical structure of a monitoring organization lends a level of complexity with regard to decision making processes. The organization being studied in this case performs social service related work by facilitating programs to support adoption permanency.

The monitoring organization must make decisions based on a collaborative effort with Public Administration as in the case of this study; the monitoring organization is also an intermediary between Public Administration and other non-profit agencies. The role of intermediary will be defined and discussed later. The decisions made between the monitoring organization and Public Administration are based on regulatory mandates, funding requirements and outcomes as well as the assessed need within the child welfare system of care as it pertains to adoptions. The nature of most government entities are plagued with bureaucratic systems that impede the speed of decision making. In addition

to the decisions the monitoring organization must make with Public Administration, there are also decisions that must be made for the monitoring organization solely; board and governance decisions, broad or holistic strategic alignment decisions as well as more granular operations and managerial decisions that impact daily practices. The monitoring organization must also make decisions that have a direct impact to the non-profit organizations that they monitor. These decisions are focused on outcomes, program design, execution of programs by the non-profit agencies they monitor, funding needs specific to units of care, how to disseminate information and more. Some of these decisions warrant some level of accountability for the performance of the agencies monitored, however, there is no direct authority over these agencies or the people who work for them.

It is difficult to conceive how such a complex decision making process could be effective if there were a stream of invalid information between the monitoring organization and the organizations being monitored. In a seminal publication by Argyris (1976), he explained that the more complex and ill-structured a problem or issue, the greater the potential for lack of clarity. This statement would suggest that the higher the potential for errors, the lower the potential that actions taken will match a plan effectively. Therefore, issues or concerns become increasingly more complex and ill structured, and the need for organizational learning increases as well as the difficulty of implementing effective learning (Argyris, 1976). Argyris argued that such a sophisticated structure is counterproductive. He stated that it is difficult, if not impossible, for monitoring organizations to ensure the quality of the learning process without becoming totally immersed in the organization. Argyris speculated that if stakeholders within an



organization hid information or provided invalid information within a process, it would be difficult for the monitoring organization to detect. There is very sparse literature that continues the conversation regarding monitoring organizations and the learning process.

In addition to the complexity that may be present in the decision making process, there are organizational structural effects that present a level of complexity as well. Organizational structures are indicative of constraints that may prevent effectiveness in organizational processes and reflect strategic choices in the definition of goals and processes. Learning theorists suggest that organizational structure is an outcome of organization learning and typically primes organizational learning itself. It is said that central structures tend to reinforce past behavior (slowing down the learning process), whereas decentralized structures facilitate adaptation of new patterns (Mano, 2010).

This study looks at a monitoring organization with a central structure, as one or a few select individuals are responsible for making key organizational decisions and assisting with overall organization prioritization. There is a reinforcement of governing behaviors and the structure underscores the complexity of the decision making process.

### **VII.I Monitoring Agency and Context**

Many public administrators have made provisions for social services through non-profit organizations, specifically contractual arrangements. Research indicates that contracting relationships between public administrators and non-profit organizations can potentially change or impact non-profit governance practices. This may cause the organization to drift from the mission or contribute to a position of government funding dependency or make decisions that are influenced by the contractual relationship (Alexander et al., 1999; Kramer, 1994; Saidel, 1991). However, despite the

aforementioned challenge, there have been a number of developments in government contracting relationships with non-profits for social services in certain markets, specifically in child welfare. The use of performance based contracts has increased at the state level in an effort to incentivize contractors and ensure alignment with program and funding goals and objectives. In addition, public administrators are calling for EBM within contracts, to demonstrate program efficacy and fidelity for the purpose of validating continued funding. This has been the case in a number of states for services such as adoption services (Frumkin, 2001; Martin, 2004).

This study focuses on the prime contractor for the Statewide Adoption Permanency Network of Pennsylvania (SWAN). SWAN is a broad-based public and private partnership that has helped thousands of children in the state of Pennsylvania find families. The SWAN contract has been managed by Diakon Lutheran Social Ministries in partnership with Family Design Resources (FDR). Diakon provides fiscal oversight (to FDR), while FDR focuses on the programs and services that children and families receive. Both organizations are non-profit organizations. The partnerships serve as an intermediary between Public Administration and Pennsylvania counties and private adoption agencies. An intermediary (or go between) is a third party that offers services between two parties. In this case it is perceived by Public Administration that the intermediary offers added value to the non-profit organizations monitored. FDR serves as a monitoring agency to the Pennsylvania counties and private adoption agencies to ensure efficacy and fidelity in program execution. Funding for program execution, (called units of service) are also provided and monitored through FDR. The relationship described is quite complex and further demonstrates the need for organizational learning.

## **VII.II Why the Monitoring Agency Structure?**

Public administrator's chose to contract with FDR in partnership with Diakon Lutheran Social Ministries for reasons of cost and expertise. Public administrators have determined in addition to lack of expertise, there is also a lack of resources required to service the counties in Pennsylvania. These are services required for things such as programming, monitoring and oversight. They have also determined that the cost of hiring and developing the expertise internal to Public Administration required to facilitate programming, monitoring and oversight exceeds the costs associated with contracting for this resource. Therefore, Public Administration and FDR, in partnership with Diakon Lutheran Social Ministries, has negotiated and agreed upon the terms of a five year contract that requires delivery of efficacious and fidelity programming, outputs (outcomes), quality and satisfaction parameters, as well as monitoring and reporting requirements. Public Administration is the primary funding source to support contract execution.

Although in the case of Public Administration and FDR contracting has been determined to be optimal, goal misalignment can often occur with some contractual relationships. However, there is significant work that is continually done on behalf of both Public Administration and FDR and SWAN to promote alignment of actions and goals. A mix of things is employed; incentives, sanctions, reporting procedures and monitoring mechanisms are a few of the methods leveraged. The monitoring mechanisms mentioned here exist at the level of Public Administration, but also exist at the level of the contractor, FDR in partnership with Diakon Lutheran Social Ministries. Frey (1993) suggests that the intensity of monitoring, frequency, formality and precision of the

performance criteria in conjunction with other contractual tools can serve to ensure alignment. However, these tools can also be perceived as distrust that may lead either party, particularly the FDR partnership and SWAN to reduce their work efforts. This creates a unique bureaucratic and defensive culture on the part of FDR and Diakon Lutheran Social Ministries. The monitoring mechanisms that are suggested are leveraged in this case study by Public Administration on FDR in partnership with Diakon Lutheran Social Ministries as well as by the partnership on counties and private agencies (promoting the intermediary descriptor of the contractor partnership). FDR and Diakon Lutheran Social Ministries has managed the SWAN contract for 12 years. There is an assumption and implication that long term contractual relationships are developed based on trust, reputation, collective goals and involvement where alignment is an outcome that results from a reciprocal relationship (Davis, Donaldson, and Schoorman 1997a, 25).

The Public Administration and non- profit relationship and the relationship between the non- profit ( contractor) and, in this case, counties and private agencies is complex, and a concise explanation of the contractual arrangement cannot be given. In fact, further research is warranted to understand these types of relationships, perhaps through a combination of steward and agency theory. In addition, research is warranted to understand how Public Administration and non- profit social service contract relationships are managed.

## METHODOLOGY

A single case study approach, with an underlying epistemology of positivism, is used to guide this study. Positivist studies test theories to increase the understanding of a phenomenon. This study will aim to increase the understanding of a monitoring organization (non-profit), transitioning from a single loop learning organization to a double loop learning organization. The learning intervention of Evidence-based management will be used to facilitate the transition. In line with other types of business management research, one of the characteristics of research classified as positivist is the presence of formal propositions. This study explores the following propositions (and research questions):

- P1: The single loop learning environment impacts the learning intervention of Evidence-based management.
- P2: The learning intervention of Evidence-based management influences the transition from a single loop learning environment to a double loop learning environment.
- P3: Evidence-based management and the double loop learning environment impact each other.

Research Questions:

- Q1: What is the impact of a single loop learning environment on organizational learning?
- Q2: What learning mechanisms exist in a single loop learning environment?

- Q3: What impact does the learning intervention of Evidence-based management have on transitioning a single loop learning organization to a double loop learning organization?
- Q4: What impact does the learning intervention of Evidence-based management have on learning mechanisms

(Myers, 2009; Kaplin and Maxwell, 1994; Orlikowski and Baroudi, 1991, p.5)

The case study is a qualitative approach and includes the use of interviews (in a group setting) and primary data produced by and for the organization. EBM is used as a learning intervention and a mechanism to structure the context within which learning could occur. This interventionist strategy can create or impact learning opportunities within the organization. A learning environment questionnaire was administered to understand the readiness of the organization with regards to learning or how to enhance the preparedness of the organization for becoming a double loop learning organization. A subsequent learning environment questionnaire was administered after the learning intervention to understand how much was learned (learning uptake) as well as potentially thought processes around institutionalizing organizational learning mechanisms. Data collection occurred by engaging the organization in several types of discussions, the use of archival data from the organization, as well as industry- specific practical and academic publications issued through Public Administration.

Interviews for the study were primarily unstructured and conducted in a group environment. The use of unstructured interviews was preferred because program and group participants knowledge of the concepts discussed varied. Questions were adapted to meet the respondents understanding. This interview method was also preferred as it

allowed for more of an expression of organizational values, norms and behaviors from the group's participants. In addition, unstructured interviews allowed for the interviewer to offer clarity to concepts discussed. A primary advantage of the unstructured interview was that it offered valid data directly from program leaders and subject matter experts. The proposed disadvantage is that there may have been an interviewer effect on interviewees. This could have occurred because participants were advised of the study by leadership prior to the group sessions. In addition, many issues discussed may not have been relevant to the study, therefore significant management of answers to questions was required. Finally, there was a concern regarding generalizability and overall data analysis. Each of the groups for the programs reviewed was very small. This will be discussed further in limitations of the study.

The study focused on the analysis of two key programs designed and delivered to counties and agencies by Family Design Resources (FDR) and the Statewide Adoption Network (SWAN). The first program analyzed was Child Preparation. Child Preparation is a program designed to assist children with working through the difficulties that can often become barriers for them finding a permanent home. The second program is the Legal Services Initiative. The goal of the Legal Services Initiative is to identify families and expedite adoption permanency for children in the Pennsylvania system of care. The Legal Services Initiative meets this goal by identifying and remedying gaps in the legal system that may slow the overall process. FDR/ SWAN also facilitate and deliver a third program. This program was not evaluated. It is called the Post Adoption – Permanency Program. This program is designed to provide support services to families who are providing permanency to children who have been a part of the Pennsylvania system of

care. Although during the start of this study this program was included in scope, the program was not analyzed due to time constraints and a limitation of resources. Staff representatives were solicited from and for each group to participate in overall program analysis for each program. The same staff representatives who participated in the project for the Child Preparation Program analysis were also planned participants for the Post Adoption – Permanency Program analysis. Some of the challenges presented in the Child Preparation Program caused a delay in analysis of the Post Adoption – Permanency Program. Representatives were members of program leadership or considered subject matter experts for their respective program.

### **VIII.I Systematic Defined Approach for Analysis – Process and Challenges**

Dr. Joseph Juran, a researcher of total quality management and management consultant, indicates that “improvements take place project by project.” All of the programs analyzed in this study were approached as a project based structured problem. Therefore, the DMAIC process was selected as a method of analysis. This method links customer requirements with process and tangible results. The purpose of the process is to improve the quality of programming, remove barriers and potential defects (errors, pain points, repetitive efforts), assign key measurements and align goals and objectives of programming with that of the organization. The key characteristics of the process are described in Figure 1.



Figure 1: Definitions Applied to Grid Format (Thawani, 2004)

<b>Concept</b>	<b>Definition</b>
<b>Define</b>	Identify, evaluate and select projects for improvement and select teams.
<b>Measure</b>	Collect data on size of the selected problem, identify key customer requirements, and determine key product and process characteristics.
<b>Analyze</b>	Analyze data, establish and confirm the “vital few” determinants of the performance
<b>Improve</b>	Design and carry out experiments to establish cause and affect relationships and optimize the process.
<b>Control</b>	Design the controls; make the improvements, implement and monitor.

There are other factors that are complementary to the DMAIC process that enhance the success of such a systematic approach. The commitment of Sr. Leadership or a Sr. Leadership team is essential. The top down approach demonstrates an upfront commitment to resources and systems to promote success. There should also be an environment that rewards successful project implementation or completion as defined by the organization. Another key factor that should be facilitated by management is an infrastructure to support a project inclusive of the DMAIC process. This means defining key objectives and responsibilities, understanding and developing the resources that are required to fund such an effort and a close specification of a process to determine how to measure results. The overall process should be very closely integrated with the existing systems within the organization with the goal of ultimately embedding this process element within it (Hahn, 2005).

In the case of FDR/ SWAN, prior to the start of program analysis, there was an investment by the organization in relevant training to ensure that there was a good foundation to introduce the DMAIC process. Trainings were customized to the needs of

the business. This included a focus on Evidence-based management and practices specific to child welfare. Trainings were delivered covering outcome assessment and the significance of analyses of outcomes with regards to the enhancement of programming, organizational impact and responsibility to stakeholders. There was a focus on group dynamics and the importance of groups as well as defining the DMAIC process. Defining the DMAIC process included developing an understanding of what the process is, how it works and mechanisms for application. These trainings were relevant as all but one group participant has a background in the social services industry or the legal industry. Although many of the concepts introduced in the training were transferable to most industries, many business concepts were introduced that were new to all participants.

The process following the foundational training was the program analysis. This was done for each group, (Child Preparation and Legal Services). There was an application of the DMAIC process as a Kaizen event. A Kaizen event is a process facilitated by a project leader with a small group of individuals from the organization. The process or event typically occurs in a condensed time frame. Although the time frame is condensed for the process, the intent is to ensure that the participants are removed from their daily work activities and have a concentrated focus on the event or process itself. The project initiatives were the start or foundation for additional work in the respective program areas of analysis (additional work is defined as subprojects that were a result of the project initiative). The foundation work required a review and understanding of process and refinement, if warranted, based on analysis. The ultimate goal for all projects was to determine outcomes and how to assess those outcomes relative to organization, mission and program goals and objectives. However, the concept

of Kaizen was selected because it places an emphasis on process rather than outcome (outcomes for each group were not well defined as a result of unclear or unidentified measures and controls in the process). It is a means of improving a service. The Kaizen event requires the same conditions that support the DMAIC process.

A significant factor that enhances the success of using a systematic process such as the DMAIC process is selecting the right kinds of projects to build a level of credibility quickly. In the case of FDR/SWAN, determinants of credibility (of programs specifically) are organization employees, leadership, board members, Public Administration, counties and agencies as well as external stakeholders. For these projects the importance was evidenced by positive Public Administration feedback and support for a 12 year period and stakeholder feedback based on their understanding of the impact of programs on counties, agencies and potentially children and families. The impetus for all projects is the push to gradual evolution of Evidence-based management and practices by non- profits (as influenced by Public Administration), specifically those who receive funding from Public Administration.

The proposed learning intervention through Evidence-based management for each project occurred over an annual quarter per project. This time frame for each project allowed for coordination of efforts within the organization and with the researcher, facilitation of the Kaizen event and start and support of subprojects. The subprojects are relevant as they set the ground work for embedding the process of evidence-based practices in the routine of the organization going forward. Researcher support for each subproject extended several months beyond the annual quarter in which the initial project occurred. The proposed impact of the learning intervention can be quantified through

learning uptake (as gaged by the Learning Environment Questionnaire) as well as by the success of continued work in the respective program areas. Success will be determined over time. (Hahn, 2005).

Inclusive in program process analysis was the review of many business elements that supports the respective programs. There was a review of the very basic elements of the organization and program strategy and process. Including this level of business operations was critical as there may be modifications required to any of these functions if programming (product) is enhanced or changed in any way. There was also a focus on return on investment. The simple definition of a non-profit organization does not allow for net profit, however, efficient and effective programs promote a significant cost savings for counties and agencies as there is an implied impact to the time and cost a child spends in the Pennsylvania systems. Potentially utilizing return on investment as a performance measure can assist in evaluating the efficiency of programming and impact to stakeholders. This measure can also be used to compare SWAN to other non-profit organizations that facilitate a similar service to determine a level of effectiveness and efficiency.

During this event there was great consideration for variability of process within the respective programming. There was a heightened emphasis on the Legal Services Initiative Program. Paralegals within the program are being utilized in various different ways within the counties they work. Some are closely adhering to the model of the program and others are facilitating certain aspects of the model. There are two concerns regarding variability, 1) the inception of the relationship with SWAN Paralegals and the county was based on the idea that Paralegals can be used at the counties discretion; 2) the

nature of social work in child welfare is very contextual. Paralegals partner with county case workers in many different ways, primarily dictated by the needs of the case. This was a great consideration when analyzing the program for Legal Services as there was an understanding that variability may not be completely eliminated. With this understanding, there was a driving goal within Legal Services Initiative programming. This goal was specifically to think about how to implement prudent hiring practices and mandate training for employees who execute programming in the hopes of managing variability. The concern for variability of process was less for Child Preparation as the program model included milestone events that are prescribed in a sequential order. There was an indication occasionally events in the process occur in a deviated order, therefore, milestones may be achieved but out of sequence. It was determined that a review of contractual obligations between SWAN and Pennsylvania was necessary to determine if embedding specifications to adhering to the program model is warranted to resolve for process variability.

There was a significant issue of data during program analysis. Currently outputs, (number of children who utilize the programming units in a respective county) are tracked for both programs. The data presented was not very useful for the current process of program analysis. However, by understanding what data was and was not available, it was helpful in determining what added information would be most useful. The data collected by the organization was not collected for the purpose of program (process analysis) or outcome assessment. The purpose of the data collected was for tracking the number of children who spent time in the Pennsylvania system of care that received SWAN programming. Therefore, procuring purposeful data from a robust data system

prior to the Kaizen event was not feasible as the “right” data nor data infrastructure exists. There was also the existing problem that database systems were purchased and remained incomplete prior to the start of implementing Evidence-based management. Therefore, the data that existed within the database was relatively new, incomplete (data entry of previous years was a work in progress), or somewhat fragmented. Unfortunately, data was retrieved as a requirement of a defined problem (defined in the onset of the DMAIC process) and did not serve to assist in analysis (Hahn, 2005).

FDR is an organization that is characterized by “red tape” just by the nature of the structure of the organization; non-profit, monitoring and intermediary. There seems to be a multiplication of power between Public Administration and FDR. There are excessive routines that served as impediments to progress during program analysis. There were multiple meetings held in an effort to try to eliminate the non-essential bureaucracy that is the nature of this organization. These meetings were structured planning sessions with key organization members to gain insight to organization structure, practices, and culture, ensure understanding of research and work with key stakeholders and more.

### **VIII.II Application of the Process**

The first part of applying the DMAIC process is creating a “roadmap” and defining the problem. The start of this process is selecting a core team to work on the two identified programs and gaining a commitment to the work. A connection was made with the Executive Director of FDR for this purpose.

### **VIII.III Use of the Evidence-based management Framework**

In addition to the aforementioned DMAIC process, critical steps involved in implementing evidence-based practices were used. These steps are based on the

prescribed method of implementation by Sackett et al., (1997). Figure 2 demonstrates Sackett's original framework. Figure 3 demonstrates how the framework was modified for implementation within FDR/SWAN. The modifications were based on the current status of the organization with regard to organizational learning. The determination of the status of the organization was derived from informal interviews with the Executive Director as well as the Manager of Research and Quality Assurance. The status of the organization (with regard to learning mechanisms) was also determined by the initial learning environment questionnaire.

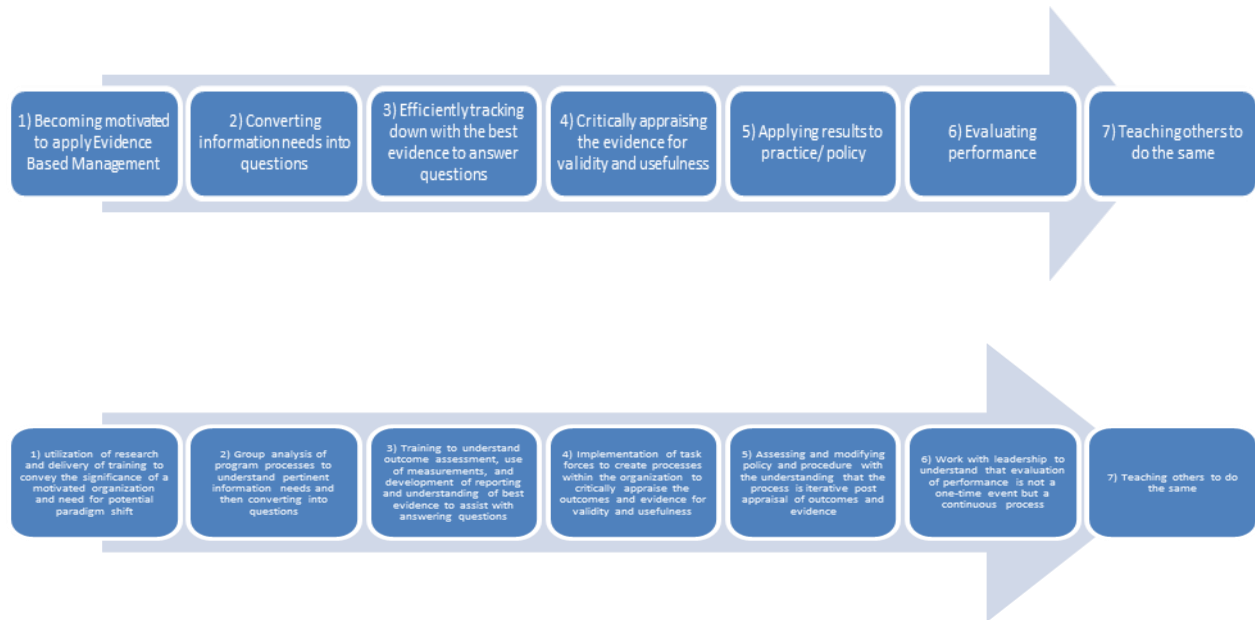
Although a modified version of the framework provided by Sackett was followed, many additional factors such as organizational barriers that are common to implementation of Evidence-based management were considered. There was a focus on organizational culture. There were two perspectives here, culture from the perspective of organization values, visions, and norms, working language, systems, symbols, beliefs and operating premises. There is also a consideration of the culture with regards to the work of Evidence-based management; there is not a history of evidence being used to routinely and systematically underpin current practice. There may be a challenge from all employees that achieving evidenced ways of working is everyone's responsibility. The working environment must also be a forgiving environment so that new ideas are championed and there is not a fear of mistakes. A consideration for workload and time management is essential. In this case study, the structure of the organization presents multiple priorities from Public Administration, internal to Family Design Resources, the needs of the county and affiliated agencies. The inability to mitigate time constraints could prevent employees from recognizing relevant evidence or generating relevant

evidence through practice. Finally, there is the need to have a skill set by employees that allows for transferring the knowledge gained from evidence found to policy and procedure that will continue to inform practice (Johnson&Austin, 2006).

In research by Johnson and Austin (2006), there is an indication that there is a challenge to create a culture focused on performance management. Simply, in this case study, assessing what kinds of programs we are facilitating and how well are we doing it. This means questioning practices in an effort to continuously improve the level of programming delivered. To do this effectively there has to be a means of measuring achievements. Utilizing evidence and outcomes to underpin practice makes the culture a consequence of these practices. What is described is a higher level of learning like that of Double Loop Learning. Errors in a process can be detected and corrected and there is a connection of those errors to the organizational values and norms, changing values (from theory-in-use), strategies and assumptions (Argyris and Schon, 1996). This goes beyond learning to perform existing routines more efficiently (Argyris and Schon, 1996; Lant and Mezias, 1992; Senge, 1990).



Figures 2 and 3: Sackett et al. Framework 1997; Modification to Framework Based on Implementation



There is significant work done between step 2 and step 3 to gain an understanding of EBM and where the organization sits today within the context of the EBM definitions offered.

#### VIII.IV The Learning Environment Questionnaire

In order to use Evidence-based management as a learning intervention, it is important to understand how organizations learn as well as how to further develop a learning organization. In this study, the Learning Environment Questionnaire (Armstrong and Foley, 2003), was utilized as an instrument to systematically measure and monitor progress towards a learning organization. The questionnaire is used to assess the learning capacity for understanding for the employees of the Child Preparation Program as well as the Legal Services Initiative Program. Utilizing the Learning Environment Questionnaire is a part of an action learning approach. Pedler (1983) indicates that action learning is a process of transition for an organization. The process is based on taking a critical organizational problem and facilitating analysis in real time. The process entails implementing proposed solutions derived from the analysis, monitoring results and

implementing a means for accountability for the actions taken. The goal in this case study is to administer the Learning Environment Questionnaire and learn what key learning mechanisms are currently in place within the organization as well as determine what may need to be a focus or enhancement for the learning intervention process. A key structural element of action learning is that the authority and responsibility of analysis and implementation falls upon the constituents that have ownership of the problem being analyzed (Armstrong and Foley, 2003).

### **VIII.V Insight to the Armstrong and Foley Study**

The Armstrong and Foley study is broad in nature in that it does not fit neatly into a focus for organizational learning nor does it focus completely on the learning organization. The main purpose of the study is to understand the context in which learning can occur. The purpose is also to understand the catalyst to structures that may create or improve learning opportunities within an organization. The study calls these structures Organization Learning Mechanisms (OLMs). These OLM's can be the catalyst to improved learning within an organization or perhaps renewal of learning within an organization. The OLM's are characteristics such as culture or structure of an organization. These characteristics certainly have implications for learning at different levels within an organization; organization, team and individual.

The aim of the study is to develop a psychometric tool with known properties that can measure OLMs. Specifically, the objective of the research is as follows:

1. Identify OLMs that support the development and operation of a learning organization

2. Identify OLMs that facilitate organizational learning
3. Develop a tool that would aid in the implementation of a learning organization as well as :
  - a. Measure and control the progress of implementation
  - b. Detect improvement, decline or dysfunction in OLMs

The methodology of the study (questionnaire) was based on organizational learning literature as well as on interviews and consultation with steering committees, workshops with staff from large public organizations and pilot studies used to test the questionnaire. Constructs were developed from relevant literature and also from the research objectives stated above. Principal factor analysis of the questionnaire was facilitated using SPSS. Per Armstrong and Foley the “expected” factors emerged from each of the categories of OLMs. It must be pointed out that while the “expected” factors emerged from each of the categories of OLMs, it did not automatically translate into consistent factors for the purpose of analyses. The Armstrong and Foley study suggests that, in most cases, that Cronbach’s alpha could be used as an index of inter- item consistency and reliability. The study also points out that that focusing specifically on OLMs will assist in providing a clear and distinct direction for learning interventions. Creating, monitoring and embedding OLMs into an organization promote learning enabling values. The goal of the study was to provide a publically available tool that could be used to assess organizational readiness of becoming a learning organization.

Therefore, in this study it is intended to use the learning questionnaire to assist in understanding the context in which Family Design Resources (and SWAN) can learn.

The questionnaire will assist in understanding the organizational processes and structures that can establish or enhance learning opportunities. The Learning Environment Questionnaire is used in this study to measure organizational learning mechanisms. The questionnaire used in this research was similar to the one described by Armstrong and Foley (2003). Simple modifications were made to the learning questionnaire administered to Child Preparation Program employees and Legal Services Initiative Program employees. The original questions in the questionnaire were modified so that they were appropriate for Family Design Resources / SWAN.

The Armstrong and Foley (2003) study used the statistic Cronbach's alpha to estimate the reliability of the constructs in the instrument. There was also an implication of the strength of the learning mechanism in question based on these Cronbach's alpha. After modifying the questions from the initial study so that they were appropriate for Family Design Resources/ SWAN, and after further analysis, it became clear that while there are certainly multiple constructs being captured by the instrument, these were all being measured in a formative way. Cronbach alphas are not appropriate for formatively-measured constructs (Petter et al., 2007) and so we did not follow Armstrong and Foley's practice in this regard.

For this reason, this study uses straight-forward descriptive statistics to argue its points. This method was selected to group and organize the data in such a way to demonstrate the relation of learning mechanism as perceived by the employees of the Child Preparation and Legal Services Initiative groups.

## **RESULTS**

### **IX.I Initial Learning Environment Questionnaire**

A questionnaire consisting of 64 questions was given to the 15 employees working in the Child Preparation Program and Legal Services Initiative Program within FDR and SWAN of Pennsylvania. In the combined groups, the survey participants were leaders and key subject matter experts for the respective programs. Due to the small size of these departments, the employees selected served as a good representation of the overall population of the departments.

Child Preparation and Legal Services Initiative employees responding to the 64 question instrument chose from four possible responses for each question: 1) Disagree, 2) Neither agree nor disagree, 3) Agree, and 4) Do not know/not applicable. The data were grouped into twelve different items or constructs, depending on the common issues addressed by the questions. For example, the item denoted as “S9 Training Satisfaction” included a grouping of 6 questions that asked about employee training programs (either formal or on the job) as the specific learning activity undertaken. The twelve items used for the Child Preparation and Legal Services questionnaire are summarized in Table 1. These 12 items or constructs were also qualitatively correlated to components that underpin the development and operation of a learning organization. These components are facilitating learning mechanisms, such as the learning environment, identifying learning and development needs, meeting learning and development needs, and applying learning in the workplace.

The small data set, coupled with response rate by participants made the results challenging to analyze. Some of the items had missing data values, and to work with

more complete date, a function was used in Minitab to impute missing numeric data. An asterisk was added to any missing data fields so that descriptive statistics could be calculated with accuracy.

## **IX.II Child Preparation and Legal Services Initiative - Descriptive Statistics**

Descriptive statistics were run for the initial Learning Questionnaire as captured in Table 2. Questions or items map to constructs (Table 1), but because the items formatively measure the constructs, the data analysis was a qualitative, positivist assessment of only the descriptive statistics. The descriptive statistics item constructs are analyzed in relation to all other variables that exist in the setting (organization), as well as how they relate to the theory of single and double loop learning and the concept of Evidence-based management. The constructs are embedded in the list of items in Table 1; mission (linked) learning, learning environment ( facilitative), organization mission support, learning satisfaction ( work unit and supervisor), organization learning support, learning and development (personal, coaching and mentoring) and training satisfaction, learning application ( suitability and effectiveness, supervisor support).

The descriptive statistics for mission (linked) learning as captured in the item denoted as S1 indicates that 55% of respondents “Agree” that this is present within FDR/ SWAN. This implies that this percentage of respondents believe that learning is aligned with the overall goal of the organization. A broad definition of mission would indicate that these goals provide a sense of direction and serve as a guide to decision making for all levels of the organization (organization, team, individual). In the loop learning process (single, double), this is considered a governing element. The mission is a governing element in the case of FDR/ SWAN for the organization as well as the teams and

individuals that are a part of it. This governing element is critical to the effective management within the organization. This governing element also has an influence on organizational outcomes and may pose certain limitations on how those outcomes are achieved; this has a direct impact on action strategies within the loop learning process. Governing elements are not an explicit consideration in the paradigm of Evidence-based management; however, they have a critical influence on steps in the Evidence-based management process. The remaining responses are: 21% Neither agree nor disagree (a neutral response), 14% Do not know/ not applicable and 9% Disagree.

The descriptive statistics for (facilitative) learning environment as captured in the item denoted as S2 indicates that 72% of respondents “Agree” that this variable is present within FDR/ SWAN. This governing element is specific to shaping the learning environment and has a relevant impact on action strategy. This governing element is critical in designing and managing the organization environment (unilaterally in the single loop learning process). This governing element will not only shape design and manage the learning environment but also have an impact on organization behavior, how the organization will learn and the effectiveness of such learning. The remaining responses are: 19% Neither agree nor disagree (neutral response), 3% Do not know/ not applicable and 5% Disagree.

The descriptive statistics for the variable Organization Mission Support as captured in item denoted as S3 indicates that 91% of respondents “Agree” that this variable is present within FDR/ SWAN. The remaining responses are: 7% Neither agree nor disagree, 2% Do not know/ not applicable and 0% Disagree. There is a very strong response to Organization Mission. This would imply that members of the two groups

Child Preparation and Legal Services Initiative strongly support the mission; they are in line with goals and objectives (as they understand them).

Items denoted S1, S2 and S3 have variables (governing elements) that align with the learning environment. Respondents indicate that learning mechanisms do exist within the learning environment and they are linked specifically to the mission of the organization. The strong implied support of the mission implies an understanding of the definition of the organization, what they do, the distinguishing factors and goals for current and future activities. There is an implication that there is a very basic understanding of these characteristics by all. The governing elements are strong proponents for learning mechanisms that will assist in evaluating and promoting the quality for the learning process in an effort to transition to a learning organization.

The descriptive statistics for Learning Satisfaction is embedded into two items, however, the item denoted as S4 has a specific focus on learning satisfaction within the work unit, and the item denoted as S5 has a specific focus on learning satisfaction and supervisory support. The responses to both variables were very similar. Responses to item denoted as S4 are: 71% Agree, 7% Disagree, 17% Neither agree nor disagree (a neutral response) and 5% Do not know/ not applicable. For item denoted as S5, responses are: 72% Agree, 4% Disagree, 23% Neither agree nor disagree (a neutral response), and 1% Disagree. The results would imply that most respondents are satisfied with their learning experience as it pertains to prioritization, development needs and business objectives. The results would also imply that most respondents feel that their immediate supervisor is supportive facilitating understanding and execution of the aforementioned. Learning satisfaction within the learning environment is a governing element (within the



loop learning process). Argyris (1985) in his summation of theories-in-use for single loop learning, implies that within the single loop learning process these type of governing elements predicate maximizing winning or minimizing losing. Again, these variables shape action strategies and have implications for organization behavior. Any impact to action strategy which in turn impacts consequences for learning and organization effectiveness has a direct influence on the use of Evidence-based management as a learning intervention.

The descriptive statistics for the variable Organization Learning Support as captured in item denoted as S6 indicates that 67% of respondents “Agree” that this variable is present within FDR/ SWAN. This result implies that the respondents agree that FDR/ SWAN has a means of facilitating a collective form of individual learning, a development of a learning culture, continuous improvement, innovation and systems that learn. The variable within this item is correlated to the issue of meeting learning and development needs on all levels, (organization, team, individual). This is essential, because from an organizational learning perspective, this creates competence, a strong mechanism for learning. This is necessary to transition to the learning organization that practices double loop learning. The remaining responses are: 5% Disagree, 25% Neither agree nor disagree (a neutral response) and 3% Do not know / not applicable.

The descriptive statistics for Learning and Development is embedded into two items; however, the item denoted as S7 has a specific focus on Personal Impact (meaning family and or extraneous organization commitments) to Learning and Development, and the item denoted as S8 has a specific focus on Coaching and Mentoring within Learning and Development within the organization. For the item denoted as S7, 77% of

respondents Agree that they are not disadvantaged or adversely impacted by learning activities. The remaining responses are: 7% Disagree, 10% Neither agree nor disagree and 7% Do not know / not applicable. For the item denoted as S8 28% of respondents Agree that a coach or mentor is desirable. The remaining responses are worth noting; 21% Disagree, 38% Neither agree nor disagree (a neutral response) and 14% Do not know / not applicable. The large neutral response (relative to the sample) and percentage of respondents who disagree prompt further questioning of this variable. Are there negative feelings or suppression of negative feelings? Does the response to such a question impact action strategy in any way? Are there behavioral consequences that have an effect on the organization learning environment? Is there an impact to organization effectiveness (e.g., managerial decision making)? These kinds of questions were explored further in the group (interview) environment.

The descriptive statistics for the variable Training Satisfaction as captured in item denoted as S9 indicates that 77% of respondents “Agree” that this variable is present within FDR/ SWAN. This would imply that the majority of respondents feel that learning activities (formal or informal) are satisfactory (satisfactory defined as useful, well structured, and timely). The remaining responses are: 6% Disagree, 15% Neither agree nor disagree and 2% Do not know/ not applicable.

The remaining descriptive statistics are for the variable Learning Application. This variable is embedded in three items; however, the item denoted as S10 has a specific focus on suitability. The item denoted as S11 has a specific focus on effectiveness and the item denoted as S12 has a specific focus on supervisor support. This particular variable is worth noting. All three items are focused on the issue of applying learning in the

workplace. The responses for the category of Agree for items denoted as S10, S11 and S12 are 44%, 39% and 43% respectively. The responses for the category Neither agree nor disagree, (a neutral response) are 37%, 41% and 38% respectively – a large neutral response relative to the sample. The remaining responses for Disagree are 12%, 5% and 17%. The remaining responses for Do not know/ not applicable is 7%, 16% and 17% respectively. These variables too warrant additional probing and were explored further in the group (interview) environment.

Argyris (1985) explains the role of governing elements (theories-in-use) for both single loop and double loop learning in summation. This is demonstrated in Figure 3. The table demonstrates a comparison of governing elements in single loop learning versus double loop learning. In single loop learning actions are designed to achieve a specific consequence. In double loop learning the same is required with the additional effort of openly inquiring about conflict and to possibly transform the governing elements. Conflict is suppressed in the single loop learning process. These learning concepts can be applied to the organization, team or individual.

### **IX.III Evidence-based management Learning Intervention - Group Interviews and Data Collection**

The learning intervention of Evidence-based management was critical. The event provided a forum to systematically review FDR/ SWAN organization practices as well as surface existing governing elements and discuss how they can impact organization (and personal) action strategies. The discussion (and review) was essential to understand processes and governing elements as they exist today and then begin to question situations, environments and causation. This assisted with a better understanding of behavioral consequences and impact to the learning environment and ultimately will have

an impact to the organization and personal effectiveness. The following are the results of group and personal interviews, observation and data collection for both Child Preparation and Legal Services Initiative groups:

**IX.III.i Child preparation. *Organization culture.*** There is a significant level of complexity associated with the FDR/ SWAN structure. Diakon Lutheran Social Ministries in partnership with Family Design Resources, Inc. manage the contract and intermediary and monitoring service that is SWAN. These relationships have tiered obligations to Public Administration, counties and affiliates. There is a steward type of relationship that exists between FDR/ SWAN and Public Administration due to the contractual and fiduciary nature of the relationship. Therefore the need for goal alignment between FDR/ SWAN and Public Administration supersedes all other relationships.

There is not a clear understanding of these relationships among members of the Child Preparation work group participants. Therefore it became a challenge to clearly understand goals and objectives for the organization and how they might be aligned. There was difficulty with regards to determining what outcomes should be targeted and how they will be assessed. A comprehensive review of the aforementioned relationships is warranted in a manner that identifies internal, external, first and second tier customers. Other stakeholders should be identified and an understanding of organization responsibility relative to these relationships is essential to all.

SWAN has evolved into a monitoring entity over the past few years and has developed a responsibility for coordination and assessment. The role today is very nebulous and has a level of ambiguity primarily due to the lack of understanding and ownership of this role by all Child Prep group members. It was stated in the Kaizen event

that FDR/ SWAN does not want to be seen as “a company that solely provides connectivity and often serves as a “middleman” between counties and affiliates”, “but should be seen as a subject matter expert resource”. Such a role must be clearly defined and does not come without ownership and responsibility for the service.

***Culture.*** Clearly all Child Preparation group members are passionate about the work for children and families as demonstrated in the lively Kaizen event. This was demonstrated by their rich knowledge of systems, processes and shared anecdotal experiences. However, a pattern began to present itself around mental models regarding work within the organization. A mental model is an explanation of someone's thought process about how something works in the “real world”. It is a representation of the surrounding world, the relationships between its various parts and a person's intuitive perception about his or her own acts and their consequences. Mental models can help shape behavior and set an approach to solving problems and doing tasks (Senge, 1990). It became clear that the level of optimism is low with regard to welcoming new process ideas and initiatives, project implementation, incorporating new processes for new direction and more of the like. Participants indicated that this is primarily due to previous initiatives that did not gain traction. It was stated that there is a lack of follow through with the aforementioned type of efforts from organizational leadership, (this included all levels of leadership) and the implication was that there is minimal dedication or support throughout the organization as a result. Current mental models seem to exhibit a level of contentment with the current or existing state as “true” problems have not prevailed. Therefore, change is not warranted. In addition, there is a perception by at least one participant that their roles are that of task execution or specific task management and

strategic focus or innovations are out of scope, (at minimum for their area or expertise and engagement). A level of group think was presented in the group. There was a mode of thinking that occurred in an effort to reach a level of harmony in the decision-making group (almost all topics, suggestions, etc. were agreed upon and were not questioned). This was an override to a realistic appraisal of alternatives within the Child Prep Program. Group think certainly impacted the decision making process.

It is essential that leadership begin to provide a more clear and consistent direction with regards to goals and objectives. There was not an understanding by some participants as to how to prioritize projects as well as leverage appropriate timelines for work execution. Leaderships set the tone for the rest of the work force. There must be a focus on projecting commitment, and understanding of the business and quality excellence. FDR/ SWAN have a lively open democratic atmosphere that would welcome such a structure.

Kaizen events have been deemed most successful when there is full commitment to participation by all attendees. Competing priorities did not allow full commitment to participation by key members of the Child Preparation work team. A dependence on “key” individuals within an organization has significant disadvantages, especially when the expertise is in the form of tacit knowledge. One such disadvantage is separation by the “key” employee from the organization. It is essential that there is a balance of resource left within an organization in the event that a key individual is utilized to full capacity for a particular initiative.

***Human capital – resources for Evidence-based management.*** Human Capital with the “right” skills is critical to the success of all organizations, especially

non-profits. It is essential for non-profits however, that there is a level of diversity of those skills with an element of business acumen in addition for passion for the mission. Business acumen promotes a spirit of organizational entrepreneurship, an understanding of the respective market sector, innovation and an understanding of holistic organization strategic planning. The Child Preparation team has a wealth of skills as resources. These skills are primarily focused in social work or social services. Therefore, there are key skill resources that are not readily available for very short term goals specific to Evidence-based management. For example, in the case of FDR/SWAN, to implement EBM, greater technological skills are required to mine data, analytical skills are required to assess data and “best evidence”. These skills are sparse within the Child Preparation team today as well as the organization as a whole. A researcher or someone with research skills to facilitate scholarly, scientific or practical research inquiry to both literature and outcomes is also necessary. This will assist with the loop learning process and Evidence-based management. Ultimately there will be an impact to managerial decisions and organizational effectiveness if these skills are not acquired.

**IX.III.ii Legal services initiative.** The Legal Services Initiative team presented a bit of a different working dynamic than the Child Preparation team. The make-up of the team is diverse, (meaning roles outside of social work) based on the needs of the organization and program. The team consists of social workers, attorneys and paralegals. The team had an awareness of the previous teams work (Child Preparation), therefore, the group promoted a significant portion of the dialogue with regard to governing elements, existing action strategies, the desire for better outcomes and a lack of understanding of how to get there and who will assist with this effort. There was also quite a bit of

dialogue about the program that they facilitate to the Pennsylvania counties and affiliates. There was not a consensus among the group as to sequence and specific elements of the Legal Services program model. However, there was a consensus that it was necessary to discuss individual thought processes, review program goals and objectives and ensure that there is a clear understanding of permanency (key element of program services). This discussion concluded with an agreement to codify the understanding of the process and program model to promote consistency going forward.

*Culture.* The Legal Services Initiative group also presented with a low level of optimism with regards to the learning intervention of Evidence-based management. The reasons were very much the same as Child Preparation. There were concerns that previous learning activities or project initiatives did not gain traction due to leadership support or accountability on many levels. There was support for reinforcing the “status quo” by many participants. One participant indicated, “.....why should I do something different when everyone else is doing the same thing”. This statement was made during a discussion about ownership and accountability (or the lack thereof). Actions reinforcing the “status quo” were acknowledged and addressed by attendees by surfacing behaviors and their impact to work processes and outcomes.

The group presented as very confrontational. Many of the participant’s contributions generated tension among other members of the team or created fragmentation among the group impacting communication. It was indicated by a few participants that this type of environment has been an impediment for progress in many situations. There is a feeling that contributions are not heard or devalued. One group member also indicated that the working environment (among this team) was very



stressful and engaging as a group is a huge effort (these are remote workers that travel to meet as a group when warranted). When the team was asked what role leadership played in the group dynamic, it was stated that it was perceived that leadership, “likes” the dialogue that they have with each other. The dialogue is necessary to work out unresolved issues.

The Legal Services Initiative group spent a great deal of time discussing leadership and the impact that leadership has on the work that they do. It was expressed that there is a desire for leadership to provide clear and concise direction with regards to goals and objectives. There is often a level of ambiguity that promotes inconsistency in execution among the team. It was also expressed that there is a desire for leadership to demonstrate the ability to lead as well as promote synergy among the team. It was mentioned by one participant that leadership often facilitates dissent among the team under the guise of generating purposeful confrontation or debate. It was observed that the team engaged in disruptive comments during dialogue, territorialism with regards to work and work groups and an adversity to collaborative efforts. Many of the aforementioned aspects of culture are specific to the legal services team. However, many participants emphasized these concerns are issues in the greater organization as well. It is worth noting that the Legal Services Initiative group has the largest number of members within FDR/SWAN.

#### **IX.IV Learning Mechanisms and Governing Elements – Single Loop Learning**

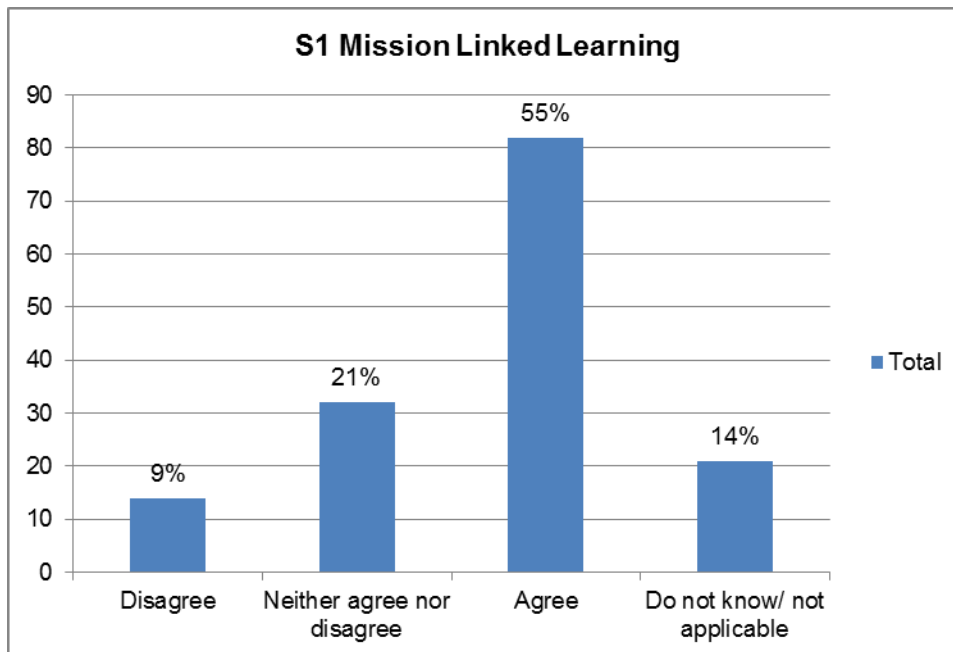
The learning mechanisms analyzed in the initial Learning Environment Questionnaire and the group interview and data collection with both Child Preparation and Legal Services Initiative underscore the characteristics of a single loop learning

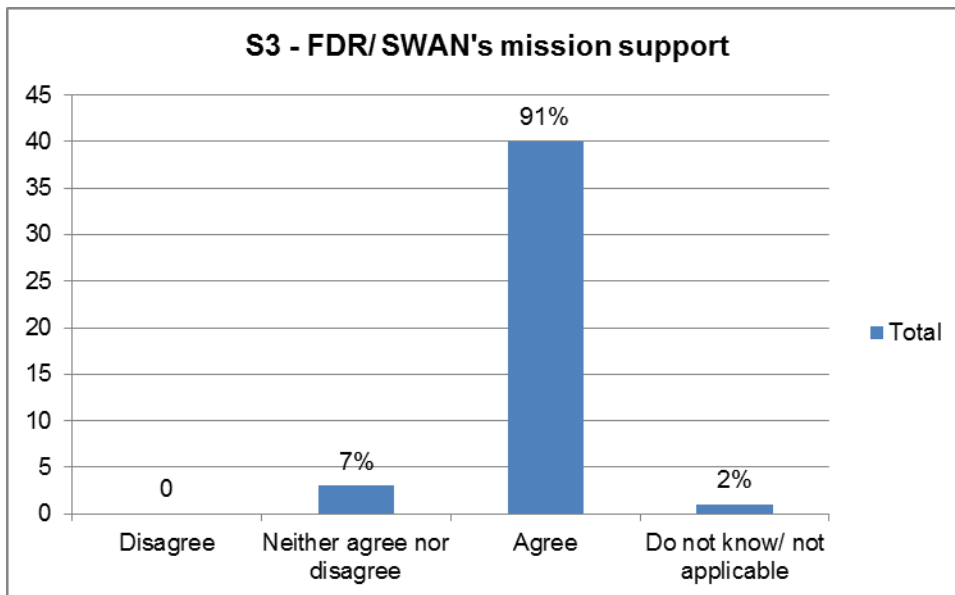
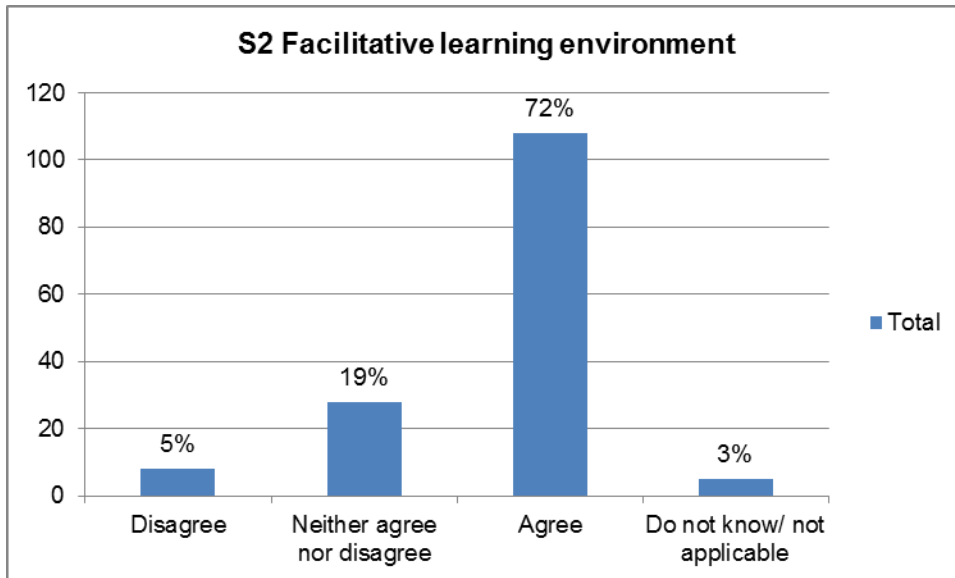
organization. There is a demonstration that (at least with these two groups), there are governing elements that exist; existing policy and procedures, existing assumptions, values and norms that create the status quo of the organization. By all accounts the organization (these two groups specifically), have been considered successful as indicated by Public Administration and feedback from other stakeholders, (counties, agencies). The governing elements have impacted action strategies that have existed for a significant duration, many of which have only been slightly modified since the inception of SWAN some 12 years earlier. The design and management of the environment has promoted some of the behaviors observed within the organization; defensiveness, inconsistency, competitiveness and fearful of expression. These behaviors inhibit the learning process and impede effectiveness within the organization. The environment has also promoted territorialism, a means of circumventing certain team players, a significant dependence on certain team players and adverse relationships with others. Finally, Leadership (on many levels), has contributed to seemingly creating a protective environment by tightly managing transparency, inconsistency with the creation and leveraging of rules and censored communication.

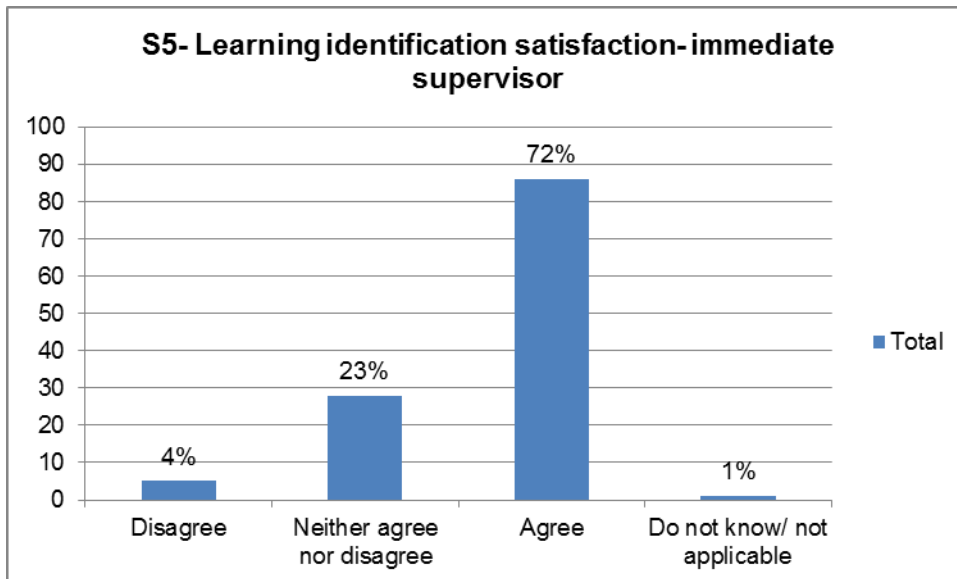
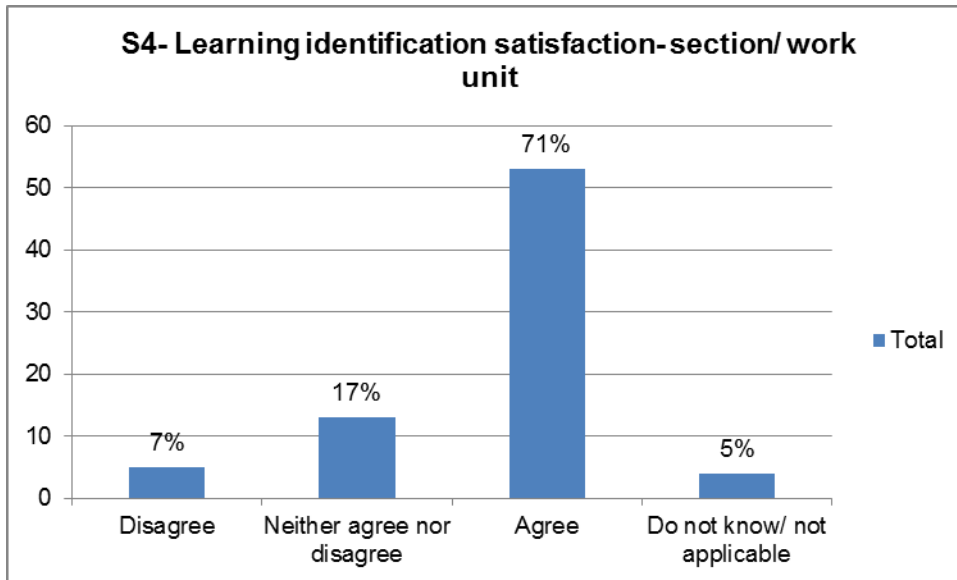
Table 1: Items Used in Questionnaire (based on Armstrong and Foley, 2003)

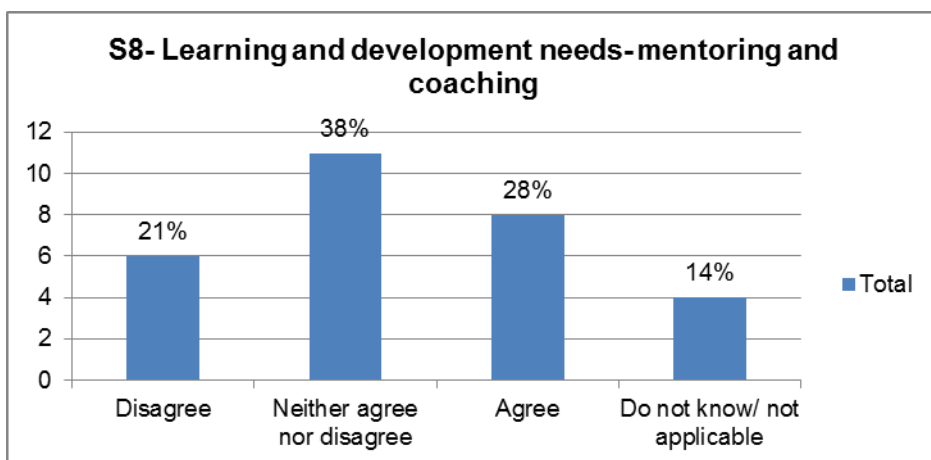
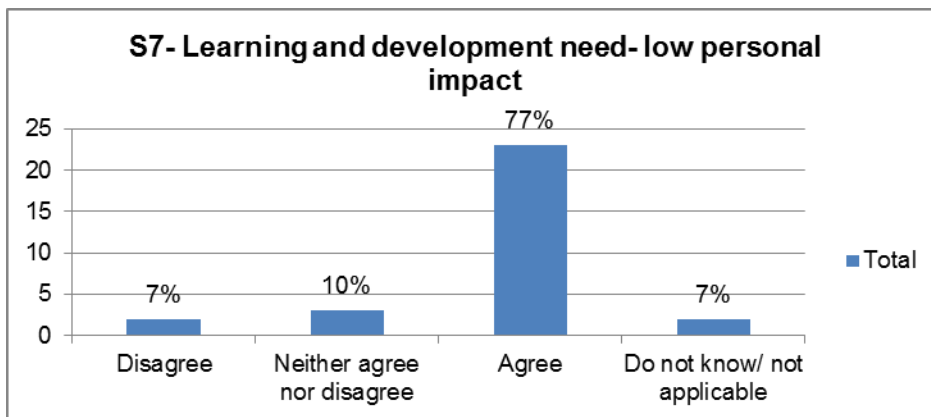
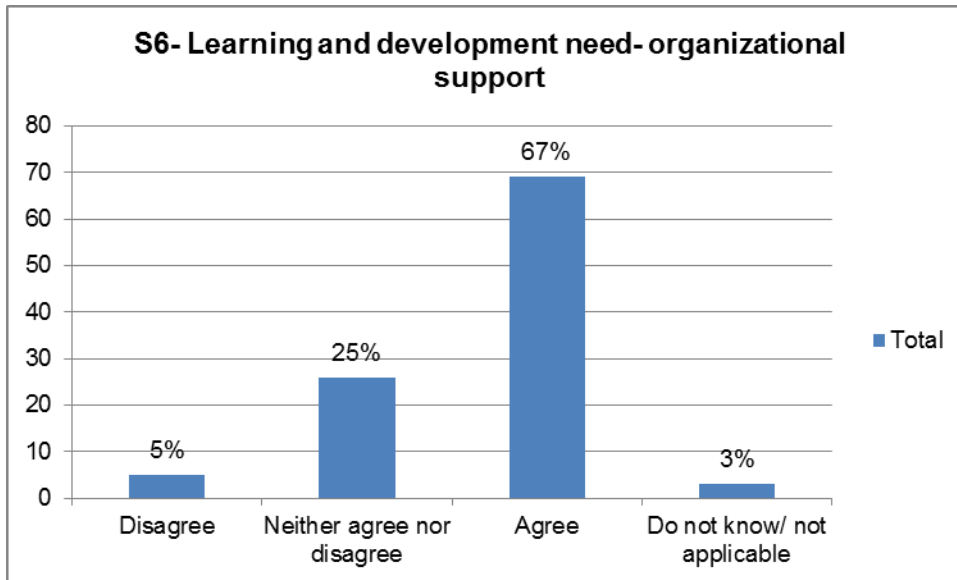
Construct	Items
Learning Environment	S1 Mission Linked Learning
	S2 Facilitative Learning Environment
	S3 Mission Support
Identifying learning and development needs	S4 Learning Identification Satisfaction – Section/Work Units
	S5 Learning Identification Satisfaction – Immediate Supervisor
Meeting learning and development needs	S6 Organization Support
	S7 Low Personal Impact
	S8 Mentoring and Coaching
	S9 Training Satisfaction
Applying learning in the workplace	S10 Learning Application – Suitability
	S11 Learning Application- Effectiveness
	S12 Learning Application- Immediate Supervisor Support and Feedback

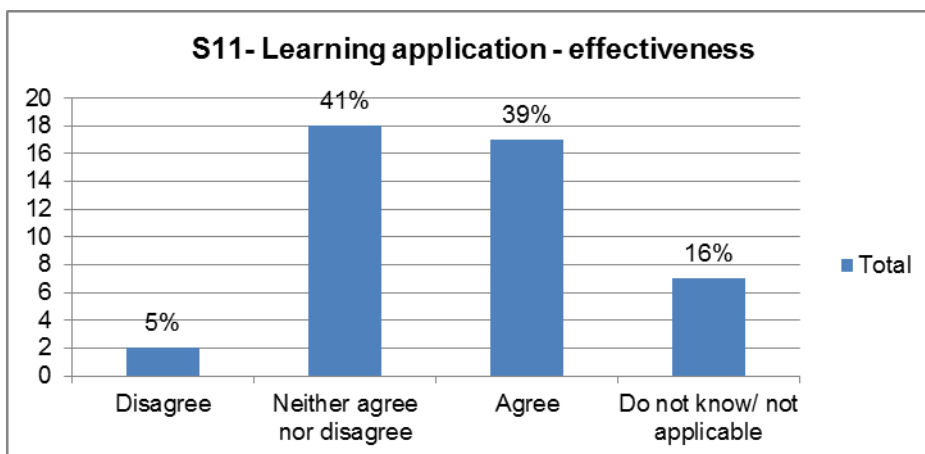
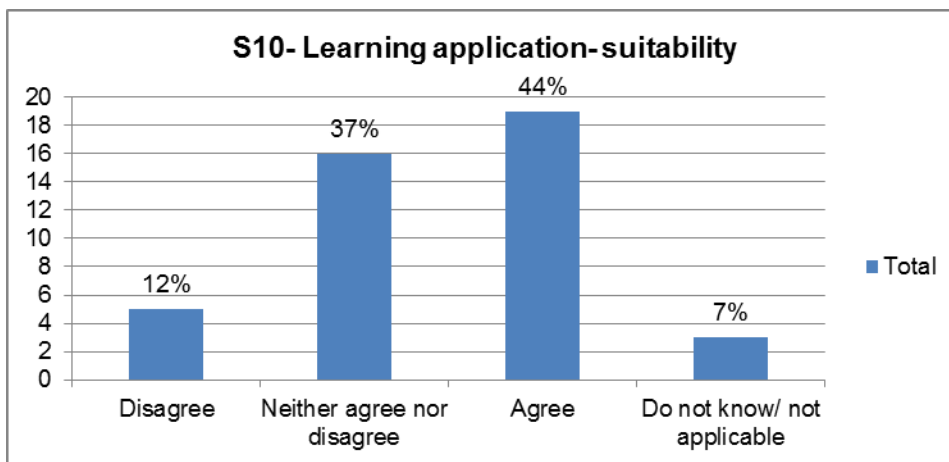
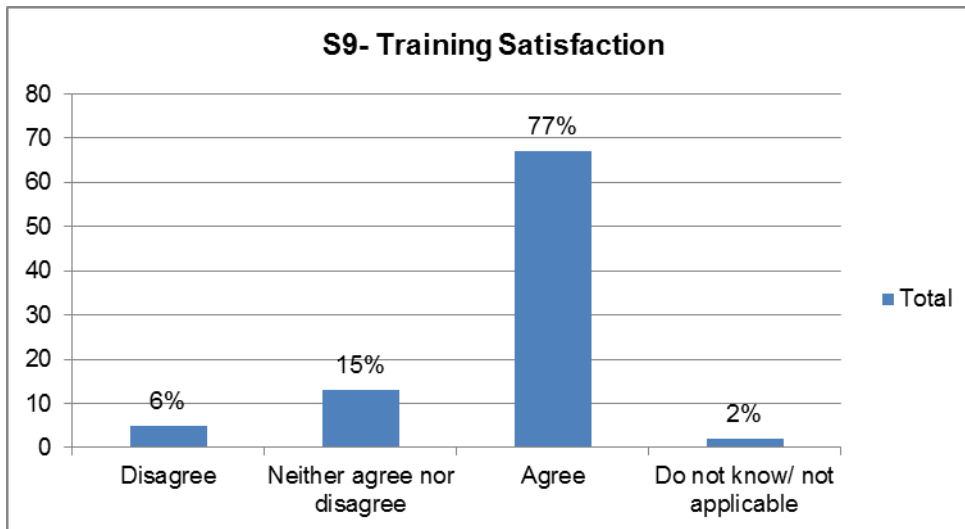
Table 2: Descriptive Statistics Initial Learning Questionnaire Survey











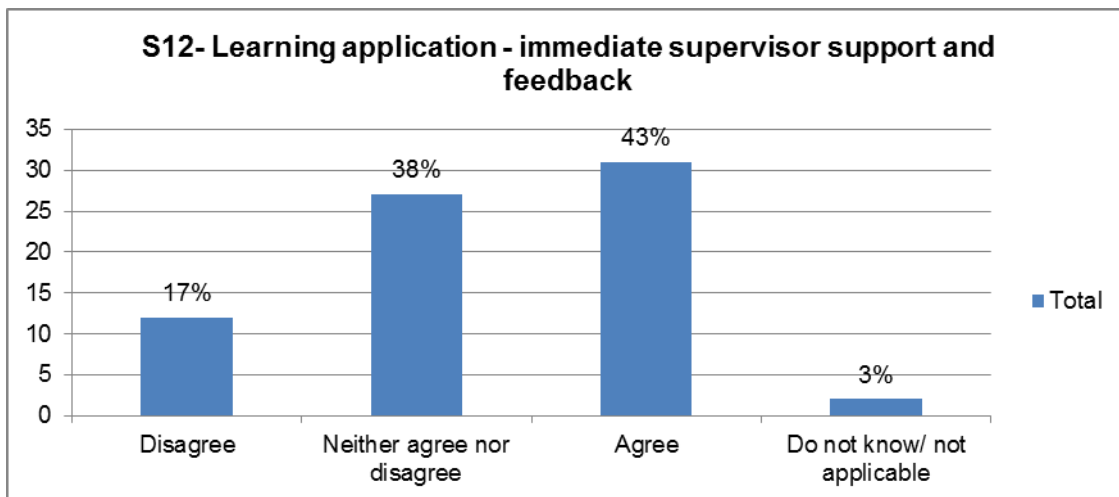




Table 3: Model I Theory-in-use – Single Loop Learning (Adapted from Argyris, 1985)

Governing Elements	Action Strategies	Consequences for the behavioral world	Consequences for learning	Effectiveness
<b>Defining goals and working to achieve them</b>	Design and manage the environment unilaterally ( be persuasive and appeal to larger goals)	Actor see as defensive , inconsistent, incongruent, competitive, controlling, fearful of being vulnerable, manipulative, withholding feelings, overly concerned about self and others or under concerned about others	Self- sealing	Decreases Effectiveness
<b>Maximizing Winning and Minimizing Loosing</b>	Own and control the task ( claim ownership of the task, be guardian of definition and execution of task)	Defensive interpersonal and group relationship (dependence upon actor, little additivity, little helping of others)	Single loop learning	
<b>Minimize generating or expressing negative feelings</b>	Unilaterally protect yourself (speak with inferred categories accompanied by little or no directly observable behavior, be blind to impact on others and to the incongruity between rhetoric and behavior, reduce incongruity by defensive actions such as blaming, stereotyping, suppressing feelings, intellectualizing)	Defensive norms (mistrust,, lack of risk taking, conformity, emphasis on diplomacy, power centered competition, and rivalry)	Little testing theories publically, much testing of theories privately	
<b>Be rational</b>	Unilaterally protect others from being hurt ( withhold information, create rules to censor information and behavior, hold private meetings)	Little freedom of choice, internal commitment, or risk taking		

**Table 4- Model II Theory-in-use – Double Loop Learning**

<b>Governing Elements</b>	<b>Action Strategies</b>	<b>Consequences for the behavioral world</b>	<b>Consequences for learning</b>	<b>Consequences for quality of life</b>	<b>Effectiveness</b>
<b>Valid Information</b>	Design situations or environments where participants can be origins and can experience high personal causation (psychological success, confirmation, essentiality)	Actor experienced as minimally defensive (facilitator, collaborator, choice creator)	Disconfirmable processes	Quality of life will be more positive than negative ( high authenticity and high freedom of choice)	
<b>Free and informed choice</b>	Tasks are controlled jointly	Minimally defensive interpersonal relations and group dynamics	Double loop learning	Effectiveness of problem solving and decision making will be great, especially for difficult problems	Increase long run effectiveness
<b>Internal commitment to the choice and constant monitoring of the implementation</b>	Protection of self is a joint enterprise and oriented toward growth ( speak in directly observable categories, seek to reduce blindness about own inconsistency and incongruity)	Learning oriented norms (trust, individuality, open confrontation on difficult issues)	Public testing of theories		
	Bilateral Protection of others				

## **IX.V Second Learning Environment Questionnaire**

A second Learning Environment Questionnaire was administered to the Child Preparation and Legal Services Initiative Group after the learning intervention of Evidence-based management. The questionnaire is used to assess the learning uptake for understanding of the paradigm of Evidence-based management. The modified questionnaire is based on the one described by Armstrong and Foley (2003). Modifications were made to the learning questionnaire administered to Child Preparation Program employees and Legal Services Initiative Program employees. The original questions in the questionnaire were modified so that they were appropriate for Family Design Resources / SWAN. The new questionnaire assessing learning uptake consists of 28 questions. The 28 questions were categorized utilizing the same 12 items used in the initial learning questionnaire. The questions were tailored in such a way that they are more specific to Evidence-based management and how it applies to learning mechanisms captured within the items. Minitab was also used for the second survey learning questionnaire to run Descriptive statistics.

After compiling the responses for all surveys it was determined that a couple of questions were left unanswered by respondents and two surveys were not returned. Therefore when the data were processed in Minitab, an asterisk was used to solve for the missing data. Minitab does not allow a placement of an asterisk for 2 complete missing rows, therefore there was not a solve for the missing surveys. There were a total of 13 respondents (referred to as cases in Minitab) for each question asked within an item.

## **IX.VI Child Preparation and Legal Services Initiative - Descriptive Statistics, Second Learning Questionnaire**

Again, descriptive statistics were selected to group and organize the data for the second learning questionnaire in such a way to demonstrate the relation of learning mechanisms as perceived by the employees of the Child Preparation and Legal Services Initiative groups. There are no questions captured in the item denoted as S7, therefore the item is not shown in the summation. A summation of this analysis is captured in Table 5.

The initial learning questionnaire questions presented were modified to ensure that they are specific to learning mechanisms within FDR/ SWAN. The second learning questionnaire was modified in a similar fashion; however, questions are specific to learning mechanisms applicable to Evidence-based management. Although the questions transition from a general focus with regard to learning mechanisms to a more specific focus of Evidence-based management, comparisons were made from descriptive statistics. The following is worth noting:

S1 – Mission (Linked) Learning - the questions in this item are specific to the learning environment, specifically how Evidence-based management ties into the mission of the organization. From the categories available to respondents, it is noted that there is a significant increase in Agree for this item.

S2 – (Facilitative) Learning Environment - the questions in this item are specific to the learning environment as well, specifically how Evidence-based management is encouraged within the organization. From the categories available to respondents, it is noted that there is a significant decrease in Agree and a significant increase in Neither agree nor disagree (a midpoint response or neutral answer).

S8 – Learning and Development (Mentoring and Coaching) – the question in this item is specific to meeting learning and development needs, specifically supporting Evidence-based management within the organization. From the categories available to respondents, it is noted that both descriptive statistics from the initial survey and the second survey produced a significant Neither agree nor disagree (a midpoint response or neutral answer). There was also a significant increase in disagree in the second survey.

S9 – Training Satisfaction – the questions in this item are specific to meeting learning and development needs, specifically how Evidence-based management supports the work of the respondents. This item included questions such as: 20) Evidence-based Practice is useful to my work, 23) The Evidence-based Practice Learning Intervention clashed with my work demands. From the categories available to respondents, it is noted that there was an increase in Disagree for training satisfaction and a decrease in Agree.

S10 – Learning Application (Suitability) - the question in this item is specific to applying learning in the work place. The question in this item is: I will share information about Evidence-based Practice with my coworkers in my section/ work unit. From the categories available to respondents, it is noted that there was an increase in Neither agree nor disagree (a midpoint or neutral response) and a decrease in Agree.

The descriptive statistics imply that respondents feel like EBM is in line with the mission of their organization. However, there is an implication that the organization may not be a strong facilitative environment for implementation of Evidence-based management (today). There is also an implication of uncertainty with regards to how this new paradigm can be applied to the work of the organization and who will guide or

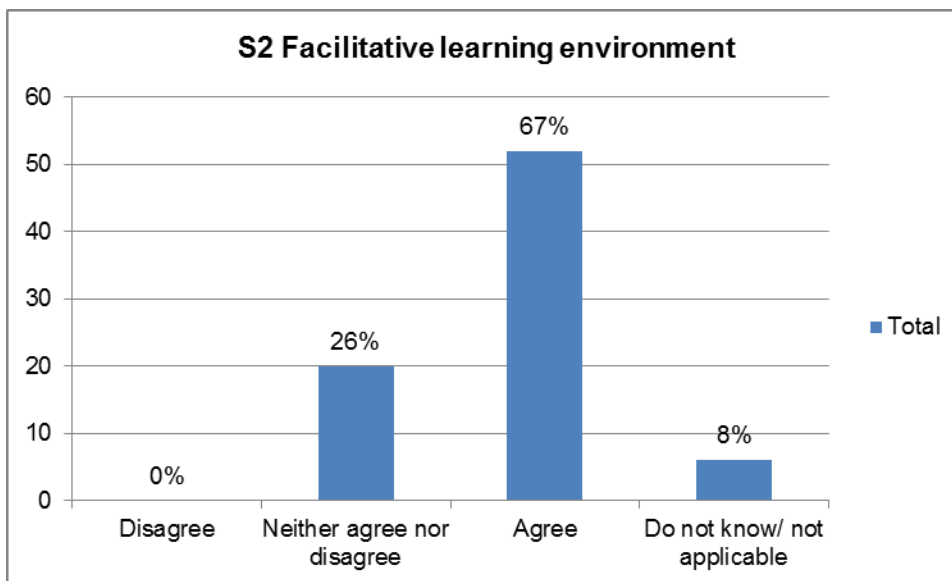
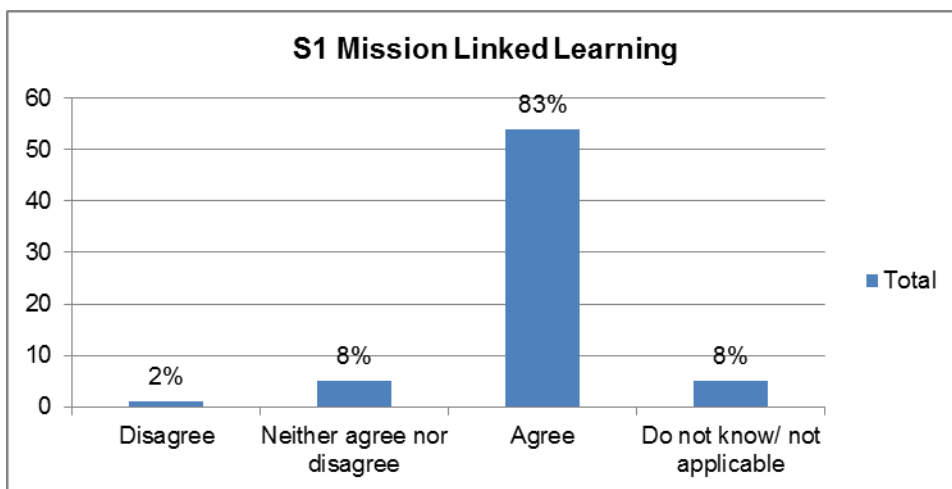
manage the organization (organization, team, individual) through it (coaching and mentoring).

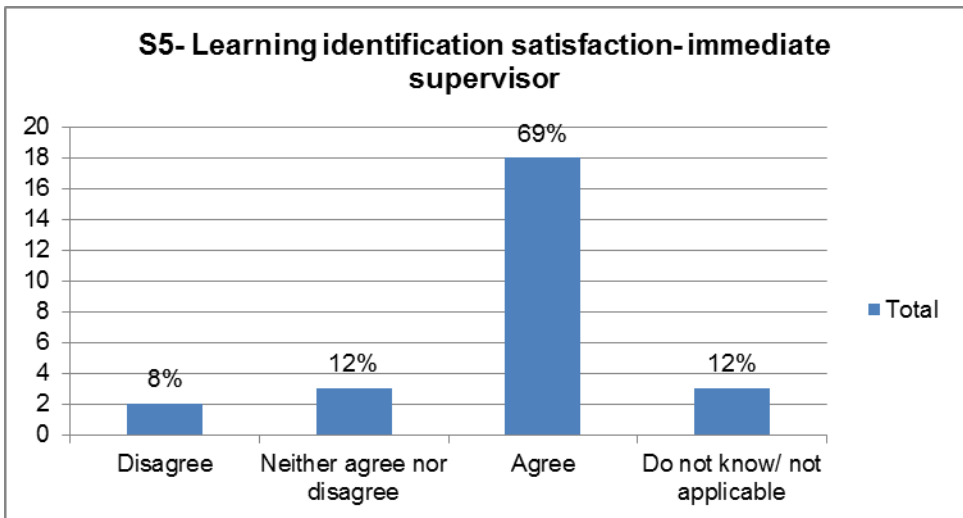
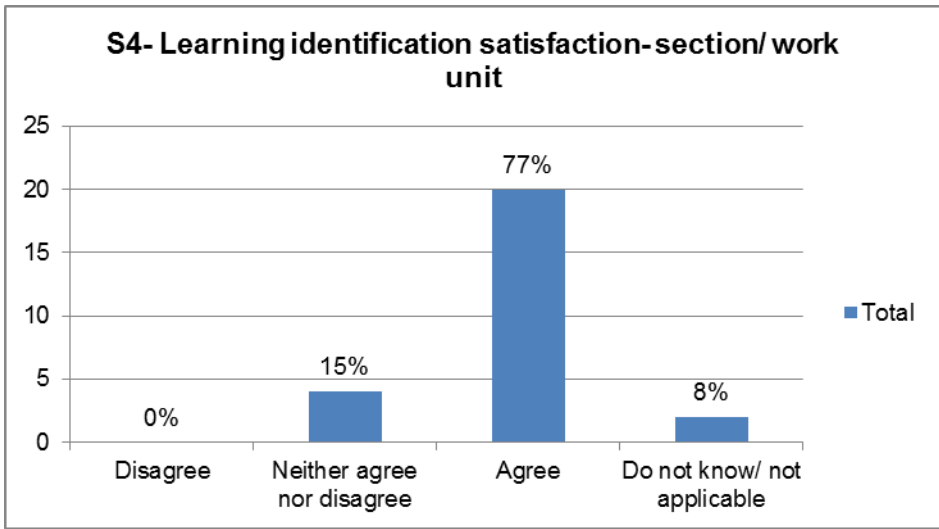
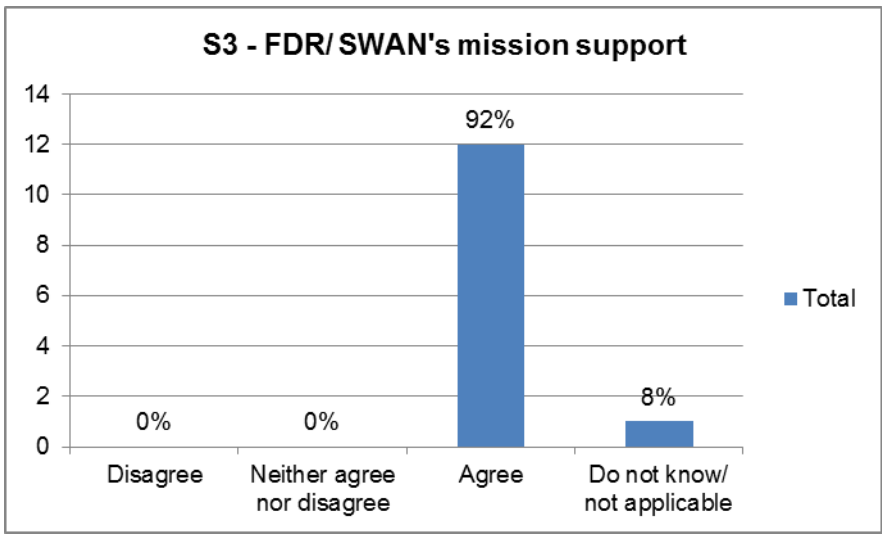
The learning intervention of Evidence-based management is critical to transitioning FDR/SWAN from a single loop learning organization to a double loop learning organization. The analysis of governing elements (programming, policy and procedures, culture, values and norms) begin the process of a more consultive or questioning approach (used in Evidence-based management). This process allows participants to have more buy in and control of the overall process. The guiding principles or governing elements used are more about validation and understanding and less about winning and losing. This is in line with Evidence-based management, as you search to understand and apply the “right” or “best” evidence to a process. The analysis of governing elements creates an environment where discussions are not suppressed and they are constructive. It warrants participants to pay close attention to their own behaviors as well as the behaviors of others. Transitioning to these double loop learning behaviors creates an environment where research and learning activities reinforce each other. This is a strong environment for Evidence-based management.

The result of the learning intervention for both groups was the creation of subproject teams. These teams were created for the purpose of facilitating action strategies that were well understood, purposefully aligned with goals and objectives and (in some cases) controlled jointly in a collaborative effort. The goal of the action strategies are not for the sole purpose of organizational (work) goals and objectives, but also to impact organization behaviors (organization, team, individual). The design of the action strategies by each subproject team also serve to positively impact the negative

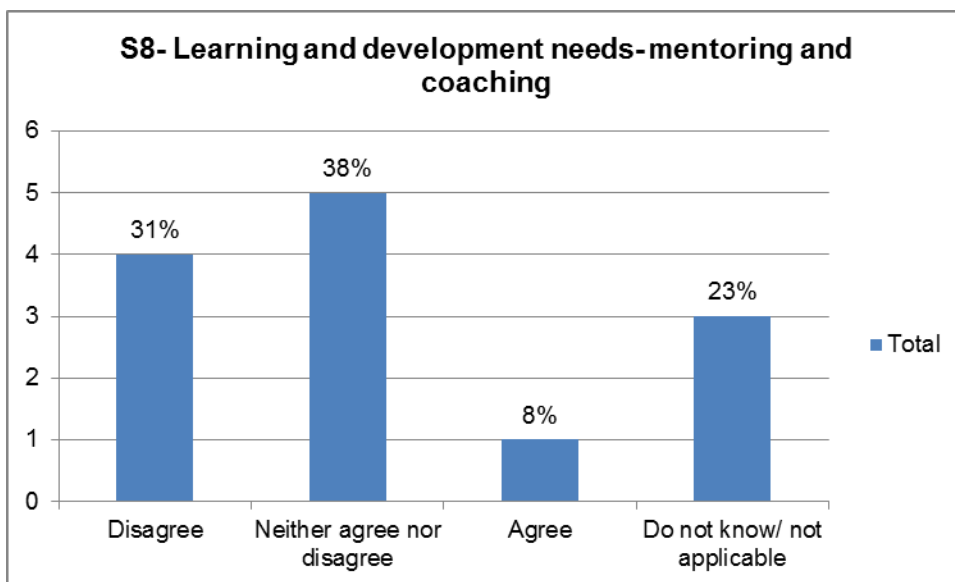
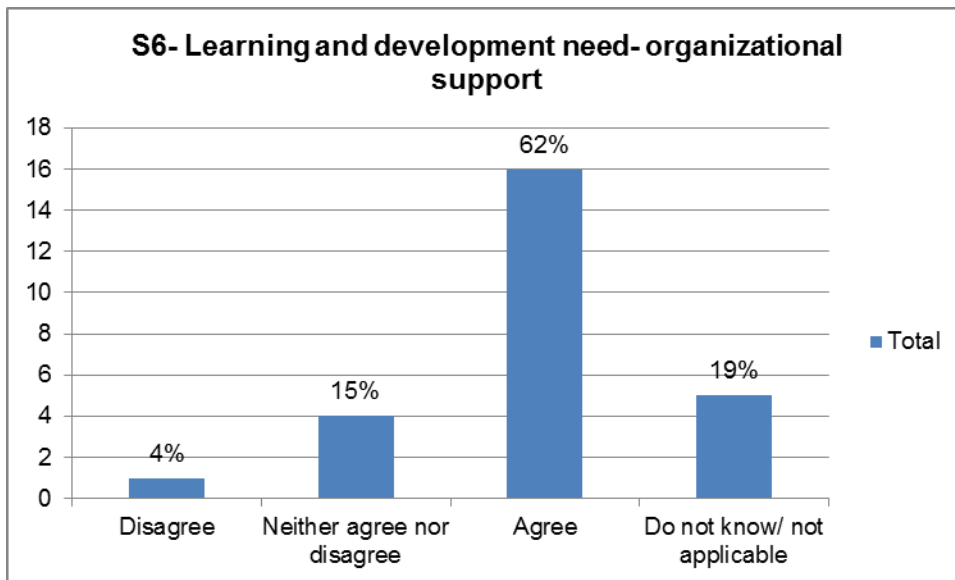
behaviors identified; defensiveness, inconsistency, territorialism, etc. These subproject teams will work to create an environment with learning oriented norms that will embed Evidence-based management into the culture of the organization for the purpose of long term effectiveness.

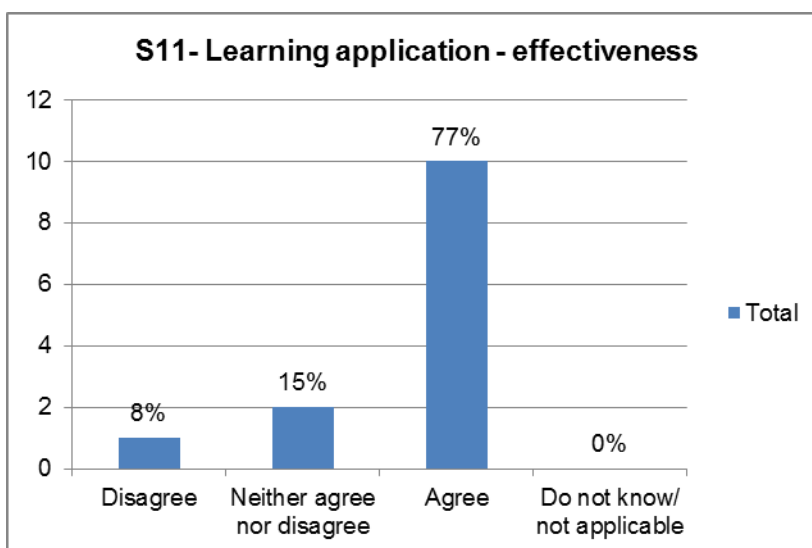
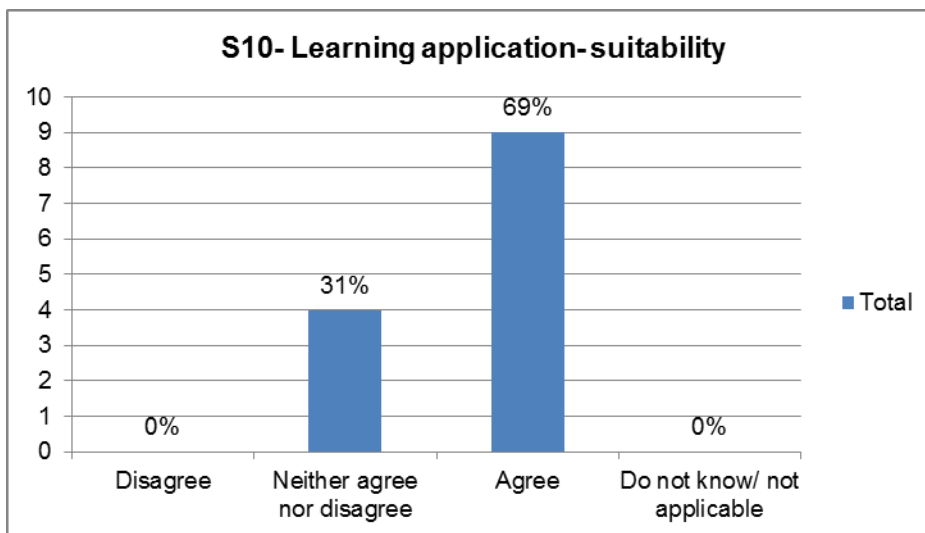
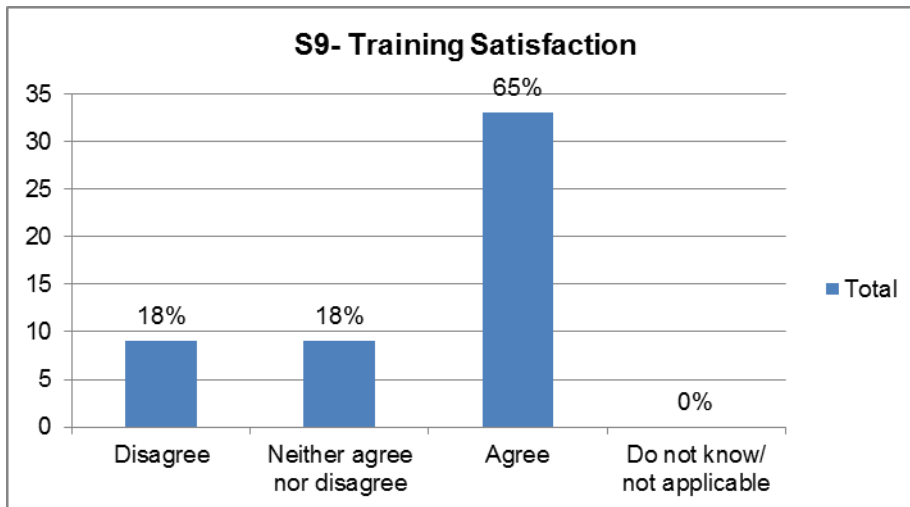
Table 5: Descriptive Statistics Second Learning Questionnaire Survey

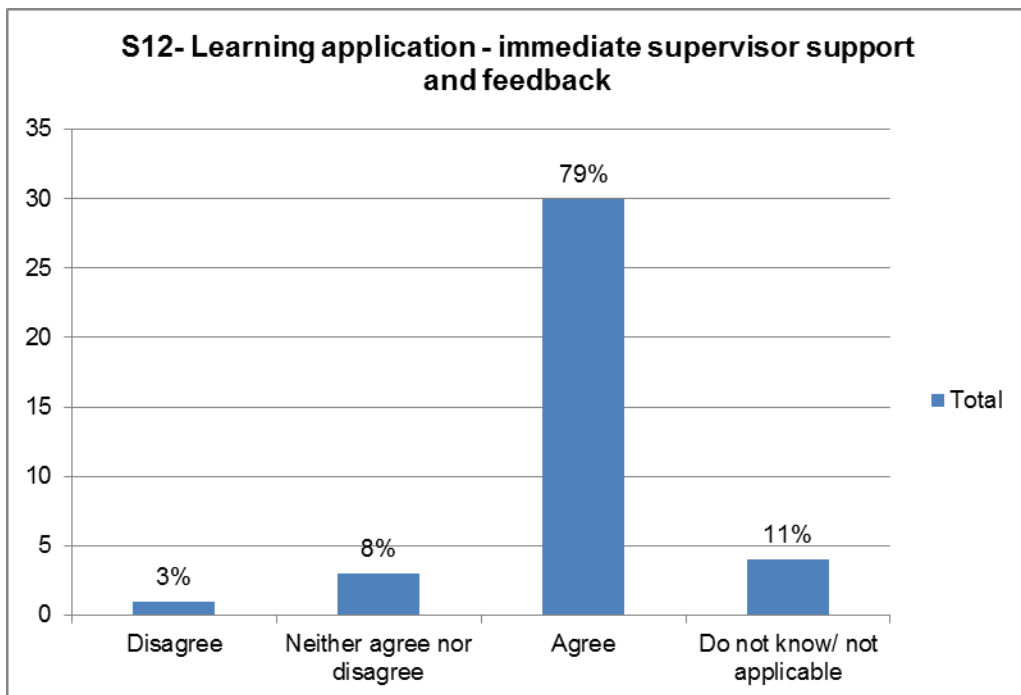












## **STRENGTHS AND LIMITATIONS OF THE CASE STUDY**

A single case study was chosen for this research as the phenomenon of the monitoring organization is not well understood. The case presented is somewhat revelatory as literature for such a phenomenon is sparse. The case study used in this research set the stage for longitudinal research to understand the impact of the learning intervention of Evidence-based management on a monitoring organization. Over time, research may demonstrate casual mechanisms as it relates to double loop learning and Evidence-based management. Research may also reveal patterns of change within the organization.

A single case study does present limitations as there may be research bias, as the researcher may develop support in some manner for the organization. There is also the issue of reliability, validity and generalizability. There is the possibility of research bias or the lack of subjectivity by the researcher. Single case studies have been faulted with a lack of representativeness (for other organizations), as well as with a lack of rigor (with regard to collection, construction and analysis of data). However, many of these issues contradict the purpose of doing a case study. Many of these issues cannot be simplified (Hamel 1993, p. 23; Shields, 2007).

### **X.I DMAIC Process**

The DMAIC process includes or selects from a wide variety of statistical tools that assist in the emphasis of measurement and control within a system. There is also a component of quality improvement for processes. The inability to procure the “right data”, (as quantitative data is sparse for the organization studied) as well as the inability to apply statistical tools to the limited data available served as a limitation. Therefore,

teams for Child Preparation and Legal Services Initiative were unable to facilitate such efforts as quantifying variability within the service programs provided. Once adequate data systems are in place and there is an ability to successfully procure data, the appropriate statistical tools can be used by employees or designated staff (with training) to facilitate overall program analysis.

The participants in the study were not familiar with analyzing data using the DMAIC method. Nor were they familiar with the need and or purpose of process measure and control. Participants were also unfamiliar with program outcome assessment. This presented a challenge for both Child Preparation and Legal Services participants. However, they were very receptive in learning new processes as well as viewing the organization with a business management and strategic purview. Both group participants are from the field of social work and legal services within child welfare. There is one participant with a business background who is the research and quality and assurance manager. The aforementioned limitation was partially addressed with a comprehensive training and overview of these concepts and skills prior to the learning intervention of Evidence-based management.

## **X.II Organizational Leadership – A Paradigm Shift**

When facilitating research with an organization, it is also a challenge to achieve continued support from the organization throughout a study. Despite the willingness to provide access and the acknowledgment that the proposed work being done could be of potential impact or benefit to the organization, there is a required level of commitment and support necessary from organizational leadership. In turn, organizational leadership must impart the commitment and perceived significance of the research study to

participants. In the case of FDR/ SWAN there was an evolutionary process of understanding the paradigm of Evidence-based management, and then how it applies to child welfare. There was also an evolutionary process of understanding organizational learning, specifically double loop learning and its constructs within it. A significant factor for this organization that served as a limitation towards progress in this study is understanding underlying assumptions and beliefs (DLL). To understand the culture of an organization, it is essential for leadership to have a strong understanding of underlying assumptions and beliefs. Culture is also in part created and maintained by the leadership of the organization. Leadership provides a reinforcement of organization ideology, core values and norms. In the case of FDR/ SWAN there was a lack of consideration and realization of the culture created by leadership, there was not an understanding of underlying assumptions and beliefs of the group participants, therefore it was not readily understood how the aforementioned would impact the transition to double loop learning or the implementation of Evidence-based management.

## CONCLUSION

This research explores the concepts of double loop learning and the paradigm of Evidence-based management in the context of a non- profit monitoring organization (in child welfare). The paper highlights the value of double loop learning and the use of Evidence-based management as a learning intervention mechanism. The paper also demonstrates how double loop learning and Evidence-based management can lend value to a non- profit (monitoring) organization through proposed efficacy and fidelity to organizational processes.

This research also demonstrates the challenges experienced by a single loop learning organization attempting transition to a double loop organization. FDR/ SWAN have the added complexity of structural implications (a monitoring agency) to consider while facilitating such a change. As demonstrated in the study, it is difficult to have managers and employees look inward to an organization and reflect critically on assumptions and beliefs (in addition to other governing elements such as policies and procedures), how these things (may) inadvertently impact action strategies and make the determination if change is warranted. Argyris (1976) indicates that this deeper form of learning is critical and a challenge, as demonstrated by a monitoring organization. The challenge of transitioning to a double loop learning organization further underscores the challenge of understanding the paradigm of Evidence-based management and then difficulty of implementing within a non-profit organization.

Finally, the study demonstrated the relevance of understanding learning mechanisms within the non-profit organization and the context within which learning

can occur. The learning environment questionnaires and interviews provided insight to the underlying structures within the organization. There was an implication that the cultural and structural facets of an organization do facilitate development, improvement and renewal to organizational learning. There was also an indication that there are implications for learning at different levels of an organization: organizational, team and individual.

### **XI.I Implications**

This study has resurfaced a point within a seminal piece by Argyris (1976), indicating that transitioning from a single loop learning organization to a double loop learning organization is a significant challenge. Literature discussing this point is sparse; therefore this study continues to extend the discussion of double loop learning theory, however, with a specific focus on monitoring organizations. This discourse requires more focus within management research and literature as changes continue to occur at the national and local level in many states as there is a transition to governance by contract for non- profit organizations. This change is creating more organizations that have a similar structure as Family Design Resources. It is a phenomenon that is worth further exploration in both theoretical and applied research.

From a practical perspective, a chief complaint of non- profit organizations that are considering the implementation of Evidence-based management is that there is not a structure or framework to serve as a frame of reference for implementation. This study offers key elements of a proposed framework for both understanding the use of learning mechanisms and implementation of Evidence-based management. Further research is required for a more comprehensive model.



This case study surfaced potential ethical implications that may be experienced by non-profit organizations that do not practice Evidence-based management. Transparent non-profit organizations that run themselves in a businesslike manner are critical today. Accountable and ethical behavior is high on the list for reasons to support a non-profit organization (funding or otherwise). This means tracking and measuring results and providing outcomes. Demand is continuously growing for non-profits to provide proof that what they are doing actually accomplishes something. Evidence-based management assists in supporting this effort as well as provides a platform for efficacy and fidelity.

The case study has several implications for further research. Although organizational learning and Evidence-based management are management theories and concepts, interdisciplinary research further exploring the theory and concept in management and public policy or management and social work are warranted. A research effort focused on founder imprinting may also be of interest. The co-founder of FDR is the Executive Director of Family Design Resources and is a focal actor in the organization. It is worth exploring imprinting and Evidence-based management as an environmental change. Another area of potential research is further exploration of culture and Evidence-based management, specifically in the monitoring organization (there is a consideration of internal and external cultural factors). Finally, it is worth exploring the issue of Evidence-based management and ethics in the non-profit. Although the core premise of Evidence-based management is grounded in substantiating and validating practice, creating efficacious fidelity models, supporting control and measurement for best outcomes and quality, there is a challenge with regard to implementation. If

educating non- profits about the paradigm and implementation, then elongates implementation, or implementation is not feasible at all, what is the ethical impact to non- profits in the future?

**REFERENCE MATERIALS**

**APPENDICES**

## Appendix A: Questionnaire 1 - Initial Survey

Question no	Questions
1	FDR/ SWAN has a mission statement which clearly reflects the purpose of the organization
2	FDR/ SWAN's mission statement places high importance on developing its staff
3	I am aware of the mission of FDR/ SWAN
4	I support FDR/ SWAN's mission statement
5	FDR/ SWAN has a comprehensive and structured organizational planning process which regularly sets and reviews short and long term organizational goals
6	Learning and development plans are linked to FDR/ SWAN's vision, mission and goals
7	Business plans with FDR/ SWAN identify the resources that will be used to meet training and development needs
8	FDR/SWAN's learning and development plans focus on continuous organizational improvement
9	FDR/SWAN sees developing staff as essential to organizational success
10	FDR/SWAN has a process for regularly reviewing the training and development needs of all employees
11	FDR/SWAN is an organization that encourages me to learn and develop to my full potential
12	FDR/SWAN has structures and systems that encourage teamwork
13	FDR/ SWAN encourages me to be innovative and entrepreneurial
14	employee multi-skilling is effectively used by FDR/SWAN to improve organizational effectiveness
15	I work in a highly efficient and effective organization
16	I have the necessary skills and knowledge to contribute to FDR/SWAN's performance
17	My contribution to the organizations performance is recognized
18	FDR/SWAN has a learning and development process available which includes looking at future job roles
19	FDR/ SWAN evaluates how the development of its people is contributing to business goals and targets
20	Top Management understand that broad costs and benefits of developing people
21	The continuing commitment of top management to developing people is communicated to all employees
22	FDR/SWAN is an organization that allows me to learn from my mistakes
23	I am pleased I chose FDR/SWAN to work for over other organizations I had considered joining
24	I am satisfied with how my learning and development needs are currently being identified
25	I clearly understand what skills and knowledge I need to be able to do my job well
26	I participate in staff training, learning and development decisions
27	My section/work unit has a sound process for prioritizing my learning and development needs
28	The skills of existing employees are developed in line with business objectives
29	My immediate supervisor and I agree on what my learning and development needs are
30	My immediate supervisor and I discuss how my job will change in the future when talking about my learning and development needs
31	My immediate supervisor understands what skills and knowledge I need to do my job well
32	My immediate supervisor uses a constructive approach to discussing my learning and development needs with me
33	My immediate supervisor encourages me to undertake activities that meet my learning and development needs
34	My immediate supervisor ensures learning and development opportunities are available to all staff in my section/ work unit
35	I am satisfied with the agreement I have with my immediate supervisor for my learning and development
36	I have met my immediate supervisor within the last 12 months to discuss my learning and development needs
37	I have access to information about available learning options and opportunities
38	Where my learning needs require I be absent from my workplace for a period, I am usually released to complete the relevant activity
39	My learning needs are generally met within three months of being identified and agreed
40	I am usually able to undertake training programs that to meet my training needs
41	I understand how the learning and development activities I undertake help me to become more effective in my job
42	Managers are often involved in delivering the learning and development activities I undertake
43	I am usually able to undertake learning and development activities with other people from my section/ work unit who have similar needs to me
44	I am rarely financially disadvantaged by undertaking a learning or development activity
45	My family is rarely disadvantaged by me undertaking a learning or development activity
46	I should have a mentor (senior colleague) help me with my career
47	I should have a coach (someone to teach me on a one to one basis) to development on the job
48	I have found the training I have undertaken in the last 12 months to be well structured and organized
49	Most of the training I have undertaken is useful for my work
50	Training is usually offered in a way that takes it easy for me to learn
51	Training that I want to do does not usually clash with my work demands
52	The training programs I have undertaken in the last 12 months usually meet my training needs
53	The pace of training I have done usually matches my learning needs
54	I am able to access accurate records of my own learning and development
55	I am encouraged to share what I have learnt with co-workers in my section/ work unit
56	I am usually asked to evaluate the suitability of my completed learning and development activities for my co-workers
57	Time is made available for me to practice what I have learnt in the workplace
58	Services and products which help me learn are benchmarked against the best services and products available
59	Learning and development activities within FDR/ SWAN are cost effective
60	My immediate supervisor usually discusses the learning or development activity with me after I have completed it
61	My immediate supervisor ensures that learning and development activities I have undertaken have met my needs
62	I usually discuss with my immediate supervisor how I will apply what I have learnt to my job
63	My immediate supervisor helps me to put my learning into practice in the workplace
64	My immediate supervisor gives me feedback on how well I am using what I have learned from completed learning and development activities

## Appendix B: Questionnaire 2 – Second Survey

Learning Environment (Uptake) Questionnaire	
Question	Questions
no	
1	The Evidence Based Practice learning intervention facilitated is in line with the SWAN/FDR Mission Statement
2	The Evidence Based Practice learning intervention is highly in line with developing staff
3	The Evidence Based Practice learning intervention facilitated is in line with SWAN/FDR short and long term goals
4	The Evidence Based Practice learning intervention facilitated is linked to FDR/ SWAN's vision, mission and goals
5	The Evidence Based Practice learning intervention falls in line with my learning and development needs
6	The Evidence Based Practice learning intervention encourages team work
7	The Evidence Based Practice learning intervention encourages me to be innovative and entrepreneurial
8	The Evidence Based Practice learning intervention facilitated will assist with organizational effectiveness and efficiency
9	The Evidence Based Practice learning intervention facilitated has provided me with preliminary skills to approach Evidence Based Practice
10	Evidence Based Practice evaluates how the development of an organizations people and processes are contributing to business goals and targets
11	Top Management understand that broad costs and benefits of developing people and is evidenced by this learning intervention
12	Evidence Based Practice allows me to learn from my mistakes
13	Evidence Based Practice will assist with the skills and knowledge I need to be able to do my job well
14	Implementing Evidence Based Practice in FDR/SWAN programming is a good decision
15	Evidence based practice will assist me in doing my job well
16	My immediate supervisor has discussed Evidence Based Practice with me in the last 12 months
17	I believe that SWAN/FDR will provide resources to facilitate research required for Evidence Based Practice
18	I understand how Evidence Based Practice activities will help me to become more effective in my job
19	I should have a coach (someone to teach me on a one to one basis) to develop evidence based practices
20	Evidence Based Practice is useful for my work
21	The Evidence Based Practice learning intervention was well structured and organized
22	The Evidence Based Practice learning intervention was offered in a way that made it easy for me to learn
23	The Evidence Based Practice learning intervention clashed with my work demands
24	I will share information about Evidence Based Practice with my co-workers in my section/ work unit
25	It will take time for me to practice what I have learnt about Evidence Based Practice in the workplace
26	I intend to discuss what I learned about Evidence Based Practice with my supervisor
27	I will work with my immediate supervisor to facilitate Evidence Based Practice
28	Evidence Based Practice will facilitate a continuous feedback loop of learning and development

## Appendix C: Scales and Questions - Survey 1

Issue	Factors	Section							
Learning Environment	S1 Mission Linked Learning	1							
	S2 Facilitative learning environment								
Identifying learning and development needs	S3 Mission Support	2							
	S4 Learning identification satisfaction-section/ work units	3							
Meeting learning and development needs	S5 Learning identification satisfaction-immediate supervisor	4							
	S6 Organization support								
Applying learning in the workplace	S7 Low personal impact	5							
	S8 Mentoring and coaching	6							
	S9 Training Satisfaction	7							
	S10 Learning application - suitability								
	S11 Learning application- effectiveness								
	S12 Learning application- immediate supervisor support and feedback								
<b>Question no</b>	<b>S1- Mission linked learning</b>								
6	Learning and development plans are linked to FDR/ SWAN's vision, mission and goals								
6	The Evidence Based Practice learning intervention facilitated is linked to FDR/ SWAN's vision, mission and goals								
9	FDR/SWAN sees developing staff as essential to organizational success								
11	FDR/SWAN is an organization that encourages me to learn and develop to my full potential								
7	Business plans with FDR/ SWAN identify the resources that will be used to meet training and development needs								
8	FDR/SWAN's learning and development plans focus on continuous organizational improvement								
19	FDR/ SWAN evaluates how the development of its people is contributing to business goals and targets								
19	Evidence Based Practice evaluates how the development of an organizations people and processes are contributing								
18	FDR/SWAN has a learning and development process available which includes looking at future job roles								
5	FDR/ SWAN has a comprehensive and structured organizational planning process which regularly sets and reviews short and long term organizational goals								
5	The Evidence Based Practice learning intervention facilitated is in line with SWAN/FDR short and long term goals								
10	FDR/SWAN has a process for regularly reviewing the training and development needs of all employees								
10	The Evidence Based Practice learning intervention falls in line with my learning and development needs								
2	FDR/ SWAN's mission statement places high importance on developing its staff								
2	The Evidence Based Practice learning intervention is highly in line with developing staff								
<b>Question no</b>	<b>S2 - Facilitative Learning Environment</b>								
12	FDR/SWAN has structures and systems that encourage teamwork								
12	The Evidence Based Practice learning intervention encourages team work								
15	I work in a highly efficient and effective organization								
15	The Evidence Based Practice learning intervention facilitated will assist with organizational effectiveness and efficiency								
13	FDR/ SWAN encourages me to be innovative and entrepreneurial								
13	The Evidence Based Practice learning intervention encourages me to be innovative and entrepreneurial								
21	The continuing commitment of top management to developing people is communicated to all employees								
21	employee multi-skilling is effectively used by FDR/SWAN to improve organizational effectiveness								
20	Top Management understand that broad costs and benefits of developing people								
20	Top Management understand that broad costs and benefits of developing people and is evidenced by this learning intervention								
17	My contribution to the organizations performance is recognized								
23	I am pleased those FDR/SWAN to work for over other organizations I had considered joining								
22	FDR/SWAN is an organization that allows me to learn from my mistakes								
23	Evidence allows me to learn from my mistakes								
23	I have the necessary skills and knowledge to contribute to FDR/SWAN's performance								
16	The Evidence Based Practice learning intervention facilitated has provided me with preliminary skills to approach								
16	Evidence Based Practice								
<b>Question no</b>	<b>S3 - FDR/ SWAN's mission support</b>								
4	I support FDR/ SWAN's mission statement								
1	FDR/ SWAN has a mission statement which clearly reflects the purpose of the organization								
1	The Evidence Based Practice learning intervention facilitated is in line with the SWAN/FDR Mission Statement								
3	I am aware of the mission of FDR/ SWAN								
<b>Question no</b>	<b>S4- Learning identification satisfaction- section/ work unit</b>								
27	My section/work unit has a sound process for prioritizing my learning and development needs								
27	I am satisfied with how my learning and development needs are currently being identified								
28	The skills of existing employees are developed in line with business objectives								
26	I participate in staff training, learning and development decisions								
26a	Implementing Evidence Based Practice in FDR/SWAN programming is a good decision								
25	I clearly understand the skills and knowledge I need to be able to do my job well								
25a	Evidence Based Practice will assist with the skills and knowledge I need to be able to do my job well								
<b>Question no</b>	<b>S5- Learning identification satisfaction- Immediate supervisor</b>								
32	My immediate supervisor uses a constructive approach to discussing my learning and development needs with me								
35	I am satisfied with the agreement I have with my immediate supervisor for my learning and development								
35	My immediate supervisor and I agree on what my learning and development needs are								
33	My immediate supervisor encourages me to undertake activities that meet my learning and development needs								
30	My immediate supervisor and I discuss how my job will change in the future when talking about my learning and development needs								
34	My immediate supervisor ensures learning and development opportunities are available to all staff in my section/ work unit								
36	I have met my immediate supervisor within the last 12 months to discuss my learning and development needs								
36	My immediate supervisor has discussed Evidence Based Practice with me in the last 12 months								
<b>Question no</b>	<b>S6- Learning and development need- organizational support</b>								
39	My learning needs are generally met within three months of being identified and agreed								
40	I am usually able to undertake learning and development activities that meet my training needs								
38	Where my learning needs require I be absent from my workplace for a period, I am usually released to complete the relevant activity								
43	I am usually able to undertake learning and development activities with other people from my section/ work unit who have similar needs to me								
37	I have access to information about available learning options and opportunities								
38a	I believe that SWAN/FDR will provide resources to facilitate research required for Evidence Based Practice								
42	Managers are often involved in delivering the learning and development activities I undertake								
41a	I understand how Evidence Based Practice activities will help me to become more effective in my job								
41	I understand how the learning and development activities I undertake help me to become more effective in my job								
<b>Question no</b>	<b>S7- Learning and development need- low personal impact</b>								
45	My family is rarely disadvantaged by me undertaking a learning or development activity								
44	I am rarely financially disadvantaged by undertaking a learning or development activity								
<b>Question no</b>	<b>S8- Learning and development needs- mentoring and coaching</b>								
46	I should have a mentor (senior colleague) help me with my career								
47a	I should have a coach (someone to teach me on a one to one basis) to develop evidence based practices								
47	I should have a coach (someone to teach me on a one to one basis) to develop on the job								
<b>Question no</b>	<b>S9- Training Satisfaction</b>								
	the following questions refer to training (either formal or on the job) as the specific learning activity undertaken								
52	The training programs I have undertaken in the last 12 months usually meet my training needs								
50	Training is usually offered in a way that makes it easy for me to learn								
50a	The Evidence Based Practice learning intervention was offered in a way that made it easy for me to learn								
49	Most of the training I have undertaken is useful for my work								
49a	Evidence Based Practice is useful for my work								
53	The pace of training I have done usually matches my learning needs								
48	I have found the training I have undertaken in the last 12 months to be well structured and organized								
48a	The Evidence Based Practice learning intervention was well structured and organized								
51	Training that I want to do does not usually clash with my work demands								
51a	The Evidence Based Practice learning intervention clashed with my work demands								
<b>Question no</b>	<b>S10- Learning application- suitability</b>								
55	I am encouraged to share what I have learnt with co-workers in my section/ work unit								
55a	I will share information about Evidence Based Practice with my co-workers in my section/ work unit								
56	I am usually asked to evaluate the suitability of my completed learning and development activities for my co-workers								
54	I am able to access accurate records of my own learning and development								
<b>Question no</b>	<b>S11- Learning application - effectiveness</b>								
58	Services and products which help me learn are benchmarked against the best services and products available								
59	Learning and development activities within FDR/ SWAN are cost effective								
57	Time is made available for me to practice what I have learnt in the workplace								
57a	It will take time for me to practice what I have learnt about Evidence Based Practice in the workplace								
<b>Question no</b>	<b>S12- Learning application - immediate supervisor support and feedback</b>								
61	My immediate supervisor ensures that learning and development activities I have undertaken have met my needs								
63	My immediate supervisor helps me to put my learning into practice in the workplace								
63a	I will work with my immediate supervisor to facilitate Evidence Based Practice								
64	My immediate supervisor gives me feedback on how well I am using what I have learned from completed learning and development activities								
65	Evidence Based Practice will facilitate a continuous feedback loop of learning and development								
60	My immediate supervisor usually discusses the learning or development activity with me after I have completed it								
60a	I intend to discuss what I learned about Evidence Based Practice with my supervisor								
62	I usually discuss with my immediate supervisor how I will apply what I have learnt to my job								

## Appendix D: Scales and Questions –Survey 2

Issue	Factors	Section
Learning Environment	S1 Mission Linked Learning S2 Facilitative learning environment	1
Identifying learning and development needs	S3 Mission Support S4 Learning identification satisfaction- section/ work units	2
	S5 Learning identification satisfaction- immediate supervisor	3
Meeting learning and development needs	Learning and development needs: S6 Organization support	4
	S7 Low personal impact S8 Mentoring and coaching	
Applying learning in the workplace	S9 Training Satisfaction	5
	S10 Learning application - suitability	6
	S11 Learning application- effectiveness	
	S12 Learning application- immediate supervisor support and feedback	7

Question no	S1- Mission linked learning
2	2 The Evidence Based Practice learning intervention is highly in line with developing staff
3	5 The Evidence Based Practice learning intervention facilitated is in line with SWAN/FDR short and long term goals
4	6 The Evidence Based Practice learning intervention facilitated is linked to FDR/ SWAN's vision, mission and goals
5	10 The Evidence Based Practice learning intervention falls in line with my learning and development needs
10	19 Evidence Based Practice evaluates how the development of an organizations people and processes are contributing to business goals and targets

Question no	S2 - Facilitative Learning Environment
6	12 The Evidence Based Practice learning intervention encourages team work
7	13 The Evidence Based Practice learning intervention encourages me to be innovative and entrepreneurial
8	15 The Evidence Based Practice learning intervention facilitated will assist with organizational effectiveness and efficiency
9	16 The Evidence Based Practice learning intervention facilitated has provided me with preliminary skills to approach Evidence Based Practice
11	20 Top Management understand that broad costs and benefits of developing people and is evidenced by this learning intervention
12	22a Evidence Based Practice allows me to learn from my mistakes

Question no	S3 - FDR/ SWAN's mission support
1	1 The Evidence Based Practice learning intervention facilitated is in line with the SWAN/FDR Mission Statement

Question no	S4- Learning identification satisfaction- section/ work unit
13	25a Evidence Based Practice will assist with the skills and knowledge I need to be able to do my job well
14	26a Implementing Evidence Based Practice in FDR/SWAN programming is a good decision

Question no	S5- Learning identification satisfaction- immediate supervisor
15	32a Evidence based practice will assist me in doing my job well
16	My immediate supervisor has discussed Evidence Based Practice with me in the last 12 months

Question no	S6- Learning and development need- organizational support
17	38a I believe that SWAN/FDR will provide resources to facilitate research required for Evidence Based Practice
18	41a I understand how Evidence Based Practice activities will help me to become more effective in my job

Question no	S7- Learning and development need- low personal impact

Question no	S8- Learning and development needs- mentoring and coaching
19	47a I should have a coach (someone to teach me on a one to one basis) to develop evidence based practices

Question no	S9- Training Satisfaction
20	49a Evidence Based Practice is useful for my work
21	48a The Evidence Based Practice learning intervention was well structured and organized
22	50a The Evidence Based Practice learning intervention was offered in a way that made it easy for me to learn
23	51a The Evidence Based Practice learning intervention clashed with my work demands

Question no	S10- Learning application- suitability
24	55a I will share information about Evidence Based Practice with my co-workers in my section/ work unit

Question no	S11- Learning application - effectiveness
25	57a It will take time for me to practice what I have learnt about Evidence Based Practice in the workplace

Question no	S12- Learning application - immediate supervisor support and feedback
26	60a I intend to discuss what I learned about Evidence Based Practice with my supervisor
27	63a I will work with my immediate supervisor to facilitate Evidence Based Practice.
28	65 Evidence Based Practice will facilitate a continuous feedback loop of learning and development

## BIBLIOGRAPHY

Argyris, C (1976). "Single loop and double loop models in research on decision making". *Administrative Science Quarterly*, 21(3), 363-375. Retrieved from <http://www.jstor.org/stable/2391848>.

Argyris, C. (1977). "Double loop learning in organizations". *Harvard Business Review*, Sept (Oct), 115-125. Retrieved from <http://www.westernsnowandice.com/09-Presos/DoubleLoop.pdf>

Argyris, C, & Schon, D (1978). *Organizational learning: a theory of action perspective*. Cambridge: Addison-Wesley Publishing Company.

Argyris, C. and Schön, D. (1978, 1996), *Organizational Learning II – Theory, Method, and Practice*, Addison-Wesley, Reading.

Argyris, C., 1985, *Action science: Concepts, methods, and skills for research and intervention*. San Francisco: Jossey-Bass. (Putnam, R., & Smith, D.).

Argyris, C. 1990. *Overcoming organizational defenses: Facilitating organizational learning*. Needham, MA: Allyn & Bacon.

Argyris, C. 1993. *Knowledge for action*. San Francisco, CA: Jossey – Bass

Alexander, Jennifer, Nank, Renee, and Stivers, Camilla (1999). "Implications of Welfare Reform: Do Non-profit Survival Strategies Threaten Civil Society?" *Non-profit and Voluntary Sector Quarterly*, 28(4): p.452.

Armstrong, A., & Foley, P. (2003). "Foundations for a learning organization organization learning mechanisms". *The Learning Organization*, 10(2), 74-82.

Bonnett, D. (2002, December 21). Sample size requirements for testing and estimating coefficient alpha. *Journal of Educational and Behavioral Statistics*, 2(27), 335-340.

Caldwell, R. (2012). Leadership and learning: A critical reexamination of senge's learning organization. *Systemic Practice and Action Research*, 25(1), 39-55. doi:10.1007/s11213-011-9201-0

Crites GE, McNamara MC, Ekl EA, Richardson WS, Umscheid CA, Nishikawa J. Evidence in the Learning Organization. *Health Research Policy and Systems*. 2009;7:



- Davis, J. H., Donaldson, L., and Schoorman, F.D. (1997). "Toward A Stewardship Theory of Management." *Academy of Management Review*, 22:1, 20-47.
- Davies, H. & Nutley, S (2002). Evidence – based policy and practice; Moving from rhetoric to reality, Discussion Paper 2. *Scotland: St Andrews University, Research Unit for Research Utilization*
- Deming, W. W. 1993. *The new economics for industry, government and education*. Cambridge, MA: Massachusetts Institute of Technology.
- Easterby-Smith, M. and Araujo, L (1999), "Organizational learning: current debates and opportunities", in Easterby-Smith, M., Burgoyne, J. and Araujo, L. (Eds), *Organizational Learning and the Learning Organization: Developments in Theory and Practice*, Sage, London.
- Evans, J.R., & Dean, J.W., Jr. 2000. *Total quality: Management, organization and strategy* (2<sup>nd</sup> ed.) Cincinnati: South-Western Publishing
- Evidence-based practice. (n.d.). Retrieved from [http://www.childwelfare.gov/management/practice\\_improvement/evidence/](http://www.childwelfare.gov/management/practice_improvement/evidence/)
- Fiol, M.C., and Lyles, M.A. (1985), "Organizational learning", *Academy of Management Review*, Vol. 10, pp. 803-13.
- Frey, Bruno S. (1993). "Does Monitoring Increase Work Effort? The Rivalry With Trust and Loyalty." *Economic Inquiry*, 31(1): 663-670.
- Frumkin, P. (2001). *Managing for outcomes: Milestone contracting in Oklahoma*. Arlington Virginia: The Price Waterhouse Coopers Endowment for Business of Government. [www.businessofgovernment.org/main/publications/grant\\_reports](http://www.businessofgovernment.org/main/publications/grant_reports).
- Goodman, .S. & Rousseau, D.M. 2004 *Organizational change that produces results*. *Academy of Management Executive*, 18 (3): 7-9
- Hamel, J. (1993). *Case Study methods. Qualitative Research Methods. Vol. 32*. Thousand Oaks, CA: Sage.
- Hahn, G.J. (2005) *Six Sigma: 20 Key Lessons Learned*. *Quality and Reliability Engineering International* 21: 225-33
- Hedberg, B., & Jonsson, S. 1977. *Strategy formulation as a discontinuous process*. *International Studies in Management and Organization*, 7: 89 –109.

Jeffrey Pfeffer and Robert Sutton (2001) *Hard Facts, Dangerous Half-Truths and Total Nonsense Profiting from Evidence-based management*. Boston. Harvard Business Press.

Johnson, M., & Austin, M. J. (2006). Evidence-based practice in the social services. *Administration in Social Work*, 30(3), 75-104

Kaplan, B. and Maxwell, J.A. "Qualitative Research Methods for Evaluating Computer Information Systems," in *Evaluating Health Care Information Systems: Methods and Applications*, J.G. Anderson, C.E. Aydin and S.J. Jay (eds.), Sage, Thousand Oaks, CA, 1994, pp. 45-68.

Kitson, A., Harvey, G., & McCormack, B. (1998). Enabling the implementation of evidence-based practice: A conceptual framework. *Quality in Health Care*, 7, 149-158

Klumpp, L. (2012, May). Challenges for non-profits, part I. Retrieved from The Non-profit Standard website: <http://non-profitblog.bdo.com/index.php/2012/05/18/top-challenges-for-non-profits-part-i/>

Kramer, Ralph (1994). "Voluntary Agencies and the Contract Culture: Dream or Nightmare?" *Social Service Review* 68(1): 33-60.

Lant, T. and Meziar S. 1992. "An Organizational Learning Model of Convergence and Reorientation". *Organization Science*, 3: 47-71.

Mano, R. S. (2010). Past organizational change and managerial evaluations of crisis a case of double loop learning effects in non-profit organizations. *Journal of Workplace Learning*, 22(8), 489-507. doi:10.1108/13665621011082864

Martin, L. (2004). Performance-based contracting for human services: Does it work. *Administration in Social Work*, 29 (1): 63-77.:

McGill, M. E. et al. (1992): Management practices in learning organizations, *ORGANIZATIONAL DYNAMICS* 21, Sum. 1992, p. 5-17.

Merriam, S. (2009). *Qualitative research: A guide to design and implementation*. John Wiley & Sons, 2009.

Myers, M.D. *Qualitative Research in Business & Management*. Sage Publications, London, 2009.

Nutley, S. M. and Davies, H. T. O. (2001), Developing organizational learning in the NHS. *Medical Education*, 35: 35–42. doi: 10.1111/j.1365-2923.2001.00834.x

Orlikowski, W.J. & Baroudi, J.J. "Studying Information Technology in Organizations: Research Approaches and Assumptions", *Information Systems Research* (2) 1991, pp. 1-28.

Pedler, M. (1983), *Action Learning in Practice*, Gower, Hartsford

Petter, S., Straub, D., and Rai, A. "Specifying Formative Constructs in IS Research," *MIS Quarterly* (31:4, December) 2007, pp 623-656.

Prugsamatz, R. (2010). "Factors that influence organization learning sustainability in non-profit organizations". *The Learning Organization*, 17(3), 243-267.

Rousseau, D (2006). "Is there a such thing as 'Evidence-based management'?" *Academy of Management Review*, 31(2), 256-269.

Rucci, A.J ., Kim, S.P., & Quinn, R.T (1998, January-February) . The employee-customer-profit chain at Sears. *Harvard Business Review*, 83-97.

Sackett, D.L., Richardson, W.S., rosenburg, W., Haynes, R.B. (1997) *Evidence –Based Medicine: How to practice and teach EBM*, New York; ChurchHill Livingston

Sackett D L, Straus S E, Richardson W S et al 2000 *Evidence-based medicine. How to practice and teach EBM*, 2nd edn. Churchill Livingstone, Edinburgh

Saidel, Judith R (1991). "Resource Interdependence: The Relationship between Public Agencies and Non-profit Organizations." *Public Administration Review*. 51(6): 543-553.

Senge, P. M. (1990). *The Fifth Discipline: The Art and Practice of the Learning Organization*. New York: Currency Doubleday. (annotated)

Senge, P. (1992), *The Fifth Discipline*, Random House, Sydney.

Senge, Peter, Kleiner, A., Roberts, C., Ross, R., and Smith, B. (1994) *The Fifth Discipline Fieldbook: Strategies and Tools for Building a Learning Organization*. New York: Currency Doubleday.

Stead, V., & Easterby-Smith, M. P. V. (1995). Evaluation oils the wheels of industry. *People Management*, 28-31.

Swieringa, Joop, and Wierdsma, Andre (1992), *Becoming a Learning Organisation: Beyond the Learning Curve*, Wokingham: Addison-Wesley.

Thawani, S. (2004). Six sigma – strategy for organizational excellence. *Total Quality Management & BusinessExcellence*, 15(5-6), 655–664.

Walshe, K. + Rundall, T. (2001) Evidence-based management: From Theory to Practice in Health Care. *The Milbank Quarterly Journal of Public Health and Health Care Policy*, 2001, Vol. 79, No. 3.

Wilson, C., & Alexandra, L. (2005, ). Guide for child welfare administrators on evidence-based practice. Retrieved from Child Welfare Information Gateway website: [www.childwelfare.gov/management/practice\\_improvement/evidence/ebp](http://www.childwelfare.gov/management/practice_improvement/evidence/ebp)

Zollo, M., & Winter, S. G. (2002). Deliberate learning and the evolution of dynamic capabilities. *Organization Science*, 13(3), 339-351. doi:10.1287