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# Applying Critical Thinking Skills for Successful Pilot Projects

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APPLYING CRITICAL THINKING SKILLS FOR SUCCESSFUL PILOT PROJECTS

by

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SYNTHESIS[*]
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Abstract:  Piloting is an approach that can be used when introducing a desired change. It allows for smaller scale trial and leaves room for modification prior to full implementation. When applicable, this approach can be a proactive way to avoiding any potential issues or conflicts relating to the change.  As a graduate student in the Critical and Creative Thinking program at UMass Boston, I have explored the concept of pilot projects for three years, planning and implementing, and revising 3 pilot projects. These pilot projects include: Meeting of the Mind's, a space in which members of the community are invited to join a discussion on best practices in Early Childhood Education; a train the trainer model for fostering trauma sensitive environments in Early Childhood classrooms; and a play–based learning environments pilot that addresses the absence of play in Early Childhood programs. This synthesis includes a reflection on effective planning, implementation, and evaluating of pilot projects, using experience and data from my own personal pilot projects, pilots within my community, and literature reviews. A connection is made between pilot projects and Action Research, providing information on processes and tools that can used to enhance the design and success of a pilot project.

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[*] The Synthesis can take a variety of forms, from a position paper to curriculum or professional development workshop to an original contribution in the creative arts or writing.  The expectation is that students use their Synthesis to show how they have integrated knowledge, tools, experience, and support gained in the program so as to prepare themselves to be constructive, reflective agents of change in work, education, social movements, science, creative arts, or other endeavors.

*"Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has."* - Margaret Mead

## INTRODUCTION

Throughout my coursework in the Critical and Creative Thinking program at the University of Massachusetts Boston, I have found myself using a piloting method; to introduce desired changes into the work place. My synthesis describes the personal work and current research that I have done around pilot projects.

Within the past few years I have created, implemented and evaluated several pilot projects which include a working group for the Early Childhood field, a train the trainer group to foster trauma sensitive classroom environments, and a pilot exploring the benefits of a play based learning environment. While my experience with piloting is notable, I recognize that I have worked on pilots without truly knowing the theory of practice behind it. In the Critical and Creative Thinking Program (CCT) I have learned the value in all reflective processes, including taking stock in order to make improvements. Therefore I revisit my projects to identify tools that I have found in my research to be helpful, as well as ways I could have modified my previous work. In this exploration of my pilot projects, I discuss various feedback models and tools that I have adopted during my time in CCT and explore some of the identified similarities between action research and the creation, implementation, and evaluation of pilot projects.

## EXPLORING PERSONAL PILOT PROJECTS

Change can sometimes seem daunting. Alterations to the norm can evoke feelings of fear, anxiety, and confusion. While change is almost always necessary for success and growth, it also comes with risk. For example, if a school would like change their approach to curriculum, they

may be asking their educators to change their teaching practices. This could potentially lead to low staff morale or high teacher turnover. The concept of 'piloting' a new idea is a more comfortable approach, as it allows for some flexibly, reflection, and modification to a change, before rolling it out to everyone and setting an new expectation. Starting small, for big results, is an experimental way to implement a change for a desired outcome. While sometimes that outcome does not always end up the way it was intended, valuable information and data is collected along the way to determine next steps and create an action plan. Highlighted below are the details of the pilot projects I have planned, implemented, and evaluated. Each of these pilots targeted a specific goal or outcome, which was modified after evaluation.

**Meeting of the Minds**

In March of 2016, I planned and implemented my first pilot project, with the help of five preschool teachers. This group was originally created with the intention of enhancing communication skills amongst the teachers in my program. It was largely based on Otto Scharmer's Four Fields of Conversation. Otto Scharmer's Theory of Generative Dialogue, also known as The Four Fields of Conversation, highlights conversational patterns that individuals typically navigate through during everyday dialogue. The fields include talking nice, talking tough, reflective dialogue, and generative dialogue. Generative Dialogue Theory is used as a technique to 'illuminate the blind spot. '(Scharmer, 2007) The blind spot he is referring to is described as an unseen dimension, in which an individual operates from, why they do and say the things that they do. Each of the Four Fields of Conversation is broken down to include specific details as it pertains to one's 'self' and how one would experience being in this field. Our goal was to navigate through each of the fields, as we discussed key issues and topics that pertained to

best practices in Early Childhood Education. We also used this space to reflect on our current practices.

In February, I began introducing Otto Scharmer's Four Fields of Conversations to the members of the group. My original intent was to offer some new insight on dialogue and communication, providing them with a few new communication strategies that they could use. To our surprise, the group evolved into something so much more.

'Meeting of the Minds' met on a bi weekly basis and was originally led by myself. Topics where chosen prior to the meeting and group members were encouraged to come up with topics that were meaningful and intriguing to their work.  One week prior to the meeting, an agenda highlighting the topic of discussion, key points, questions, and concerns was sent out. This allowed time for the group to research, observe, investigate, or simply gather their thoughts prior to the dialogue. At the initial meeting, ground rules were decided as a group and were posted at each meeting. Ground rules included:

- *Be respectful*

- *Be honest*

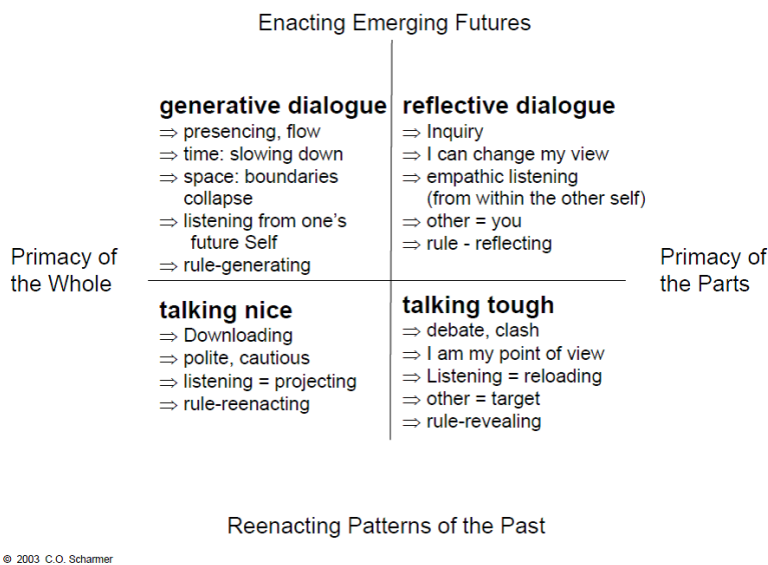- *Be open*

- *Let each other finish their thoughts before you speak*

- *Leave your cell phone on silent*

- *Listen*

- *Engage*

A team charter was created to ensure the team dynamics and purpose was understood, followed, and respected. This charter was drafted collaboratively, with input from all team members. The charter highlighted roles, responsibilities and expectations of each team member.

Once it was approved by all members, the charter was signed and it was agreed that after 6 months, we would reevaluate our charter and make changes as necessary. After the initial evaluation a rotation of the team leader every three months was added to the charter, giving each member a chance to hold the facilitator role.

The agenda of the meeting incorporated key elements of critical thinking processes, as well as Otto Scharmer's Theory of Generative Dialogue. (See Appendix A for agenda example) See Figure 1 and the breakdown below for each field and its correlation to the agenda.

**FIGURE 1**



Enacting Emerging Futures

**generative dialogue**
⇒ presencing, flow
⇒ time: slowing down
⇒ space: boundaries collapse
⇒ listening from one's future Self
⇒ rule-generating

**reflective dialogue**
⇒ Inquiry
⇒ I can change my view
⇒ empathic listening (from within the other self)
⇒ other = you
⇒ rule - reflecting

Primacy of the Whole

Primacy of the Parts

**talking nice**
⇒ Downloading
⇒ polite, cautious
⇒ listening = projecting
⇒ rule-reenacting

**talking tough**
⇒ debate, clash
⇒ I am my point of view
⇒ Listening = reloading
⇒ other = target
⇒ rule-revealing

Reenacting Patterns of the Past

© 2003 C.O. Scharmer

**Field One- Talking Nice**

Each group session starts out with silent meditation. While it is not quite critical thinking, silent meditation helps to prepare individuals to clear their mind. Similar to free writing, silent meditation allows one to become present in the group. The goal is to 'drop fully into the field together.' (Scharmer, 154) Following mediation, the group reviews goals of the group and the rules, so as to affirm the expectations of the meeting. A check-in follows, with each group member sharing what is on their minds or what they are thinking about before we dived into the

topic.  This portion is utilized as an opportunity to simply just recognize where you are at. Everyone has a chance to share, but they could also pass if they did not want to share at this time. With its self-explanatory name, this field is guided by a mutual respect for others. In Field One, individuals are often cautious and mindful of social norms.  Downloading, which is acting from a pattern or memory, is a typical action of Field One, in which the conversation remains at surface level and is often predictable.

**Field Two- Talking Tough**

Moving into Field Two includes discussion around what we know and what we want to know. During this field, individuals firmly argue their point of view, with the goal to 'be right'. Often time's people can get 'stuck' in this field, as they are unwilling to budge from their personal stances. While one can argue their side, in this field, they are simply not willing to hear or accept the opinions of others. Individuals are much more honest in this field, than in Field One, but they are not open or reflective to others opinions.

**Field Three- Reflective Dialogue**

Field Three brings us to 'Reflective Dialogue'. Instead of becoming 'stuck' in Field Two, you can take your 'debate' into Field Three, in which you become much more insightful. Entering Field Three means that individuals are now able to be 'reflective about what they are doing and about the impact they are having.' (Gunnlaugson, 2016) It isn't so much about being 'right' or having answers, but more about looking at the bigger picture. There is more emotion in Field Three, in which individuals are able to take the views of others into consideration and build relationships. Also in Field Three, you learn to be become an empathic listener; in which you are able to truly understand the value of just simply listening to others.  In Richard Salem's 2003 article, *The Benefits of Empathic Listening,* he describes the power of this type of listening

'regardless of whether a conflict can be solved, when practicing empathic listening, an individual creates a safe space of trust, confidence, and open mindedness. This environment allows all parties involved to feel listened to, valued, and respected, despite what the outcome may be.' During this part of our meeting, the group is simply encouraged to maintain an open dialogue, keeping in mind the purpose of Field Three.

**Field Four- Generative Dialogue**

The final field is Field Four, Generative Dialogue. Field Four can be described as the ultimate goal in dialogue, because it is at this point in which 'we are now more interested in serving larger or deeper creative processes with our senses and listening.' (Gunnlaugson, 2016) The concept of presencing comes into play, which is one's ability to be present, attentive, and open to the possibilities of the emerging future. Presencing means to be fully aware of one self and what they can offer.  While in this field, individuals are able to move on from the relationships built in Field Three and place their focus on understanding and achieving their own highest potential. While it isn't often that individuals are always able to get to this field, especially in a two hour meeting, their practice in navigating the other fields may eventually lead to this. During this time in our meeting we hold a wrap up discussion that includes final thoughts, feelings, and realizations that came up during the meeting. It also includes closing and feedback, which is really thinking about what we learned and what we still want to find more about. There is also time for reflection on the meeting format itself, taking into consideration what worked well, what didn't, and any changes we may need to make.

Early on the question arose as to how we would measure ours success. The team adopted the 'Communication's Self-Assessment' created by HTC Consulting. (See Appendix B) The self-assessment was taken at the beginning of our work and then again after 6 months.  After the

second self-assessment we reviewed our team charter and compared pre/post assessment results. In February of 2017, we began to reflect on the work of our pilot group. Our initial goal was to improve the communication skills of the staff, which we had all agreed that growth was largely evident both personally and in the results of our self-assessment comparison. The goal of the group began to evolve, as we decided to continue to work on communication skills, but began to think about how we could use this work to influence Early Childhood best practices within ourselves and the community. Guided by Wegnar, McDermott, and Snyder's book, Cultivating Communities of Practice: A Guide to Managing Knowledge, adaptations were made to the 'Meeting of the Minds' group; those changes included:

➢ **Design for Change/Reflection**

Inviting new members to our group to evolve from a group of educators, to a diverse group of individuals working towards the same goal

➢ **Build a Constituency**

Welcoming key community representative and members to join the team

➢ **Build a Diverse Group**

Invitations included more teachers (from other agencies and programs as well), parents, principles, doctors, specialists, Department of Children & Families, community reps, etc.

➢ **Create an Open Forum**

Offering the opportunity for new members to sit in on a meeting and see if this is something that interests them.

➢ **Focus on Goals/Outcomes**

The main goal continued to be to provide quality and consistent care in Early Childhood programs

➢ **Focus on Fun**

Addition of a fun activity to the agenda of each meeting as an ice breaker to keep
meetings engaging and enjoyable

➢ **Consistency**

A consistent schedule was created after work hours so as to accommodate to all
participants. Participants were asked to attend other events in the community with a view
to recruiting for new members

Two years later, the Meeting of the Minds group is still an active group meeting on a bi-
monthly basis. The team is comprised of eleven regular members, which includes four teachers
from my program, one teacher from the public school, two program administrators, one parent,
two community representatives and me. Recruiting and retaining members is a struggle, but the
goal of the group remains the same. The group charter and progress has not been evaluated in a
little over one year. A subgroup of this team has also been created, which consists of the
members of the group who work in my program. This team is called the 'Staff Advisory
Council'. The two teachers and one administrator that sit on the 'Meeting of the Minds' group
with myself, also meet on a monthly basis with a small group of other program staff. The two
groups serve as a liaison to one another. Information, questions, and concerns are brought back
to both groups, by their shared members.

The creation of this pilot was a truly rewarding and empowering experience, for not only
me, but for the original members of the group. Their desire to learn more from the very
beginning indicated to me that they were a very capable and motivated group. Watching the
group evolve from a staff discussion amongst teachers to community collaboration has shown
me how much they have grown in their ability to take on leadership roles and advocate for

themselves. Having been the first time that I had led the creation, implementation, and evaluation of a pilot, I recognize that without the hard work, dedication, and shared goals of the other members involved it would not have been as successful as it has been.

**Trauma Sensitive Environments**

I have worked in the Early Childhood field for over fifteen years. Primarily my work has been with low income and at risk families. I have been working at a Head Start program for twelve of those years. Head Start programs provide comprehensive early childhood education, health, nutrition, and parent involvement services to low-income children and their families. With this rewarding work, there are also harsh realities. The families we serve often face traumatic situations such as homelessness, domestic abuse, drug/substance addiction, and poverty. In an effort to foster trauma sensitive environments in our program, I planned and implemented my second pilot around a train the trainer concept. The success of the 'Meeting of the Mind's pilot group inspired me to us a similar format when planning this new pilot.

The initial core group consisted of four lead teachers, two assistant teachers, one social worker, one second director, and one parent. The group met two times per week, for six weeks. The goal was to work collaboratively to create a training plan, for all staff, that would promote positive classroom environments that support the social, emotional, and developmental need of the children we serve. Our end result would be the creation of a' train the trainer' training in which participating group members would become facilitators of their own group, in which they would model after the original group. The group created content for twelves sessions, which included:

- ➢ 1: Introductions, Set Rules & Goals of Group, Defining Trauma
- ➢ 2: Using a Daily Schedule/Routine for Consistency in Classroom

- 3: Offering Choices to Children
- 4: Using Positive Reinforcement
- 5: Redirection of Negative Behaviors
- 6: Ways to Build and Maintain Healthy Relationships with Children & Families
- 7: Creating a Calm/Safe Space for Children
- 8: Support Self-Regulation Skills in Children
- 9: Be Aware of Triggers & Being Proactive
- 10: Role Modeling Expectations
- 11: Reflecting on What We Have Learned/Tried
- 12: Effectively Facilitating Small Groups

Each session was facilitated and had a similar format to the "Meeting of the Minds" , which included silent meditation, reviewing of goals/rules, check-in, what do we know, what do we want to know, open dialogue, wrap up, closing, and feedback. Each discussion had a specific topic that guided the conversation for that session. Although this was intended to be training, there was also an element of creating a Community of Practice that provided a safe space for educators to reflect on best practices as a group. In September 2018, the original 9 creators of the group began facilitating their own training. Each of these groups consisted of nine staff members and one facilitator. Participants in these groups were also trained in facilitating the group, however it was not required that they facilitate their own group if they did not feel comfortable to do so. This train the trainer format was a great professional development opportunity for two reasons: not only did it provide staff with the opportunity to experience a different training format, but it also provided them with the opportunity to learn how to effectively facilitate a group. Since beginning our work, we have had 20 staff volunteer to be facilitating the next training. By June 2018, all current and newly hired staff

will have participated in this training. Beginning in September of 2018, this training will be offered on a quarterly basis for newly hired staff or staff who is interested in a refresher.

**Play Based Learning Environments**

In my experience in the Early Childhood Education field, I have experienced the curriculum pendulum swing back and forth from play based to academic based settings. I recently found myself disappointed with the lack of play in preschool, with a now stronger focus on academics being considered the current best practice. A large emphasis has been placed on direct instruction, which I feel is developmentally inappropriate for preschool aged children. Current standards are limiting our thinking and creativity when it comes to the Early Childhood classroom environments. The restrictions on curriculum are creating what some refer to as a 'culture of compliance'. (Curtis & Carter, 2005) In my role as the Education and Operations Manager at a Head Start preschool program, I oversee four center based programs. Currently, the Head Start performance standards are aligned with the Massachusetts Standards and Guidelines, requiring that programs must implement developmentally appropriate research-based early childhood curriculum that are based on scientifically valid research. However, the Head Start performance standards also state that a program can make adaptations to a curriculum to better meet the needs of the population. Using this leverage, I began working on my third pilot project in September 2017, a pilot play based preschool classroom.

Currently my program uses the Creative Curriculum; implemented much more in the style of academic teaching. After proposing my ideas on the pilot classroom to the educators in my programs, I began work with a set of teachers interested in piloting the play based classroom, as well as set of teachers who agreed to be the academic setting control group, in which we would compare our data. As a team, we met on a weekly basis to determine what modifications

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we needed to make in order to create a play based environment, while still meeting the standards and guidelines from the state of Massachusetts and the Office of Head Start. In an effort to measure the progress and success of the pilot classroom, teaching practices were assessed using the Classroom Assessment Scoring System (CLASS) was used to assess teaching practices. CLASS is an observational tool used to measure classroom quality and teaching practices in grade levels ranging from preschool to high school. The main focus of the observation is on teacher-child interactions and how the teacher creates an engaging learning environment. The tool is broken down into 3 dimensions which include: Emotional Support, Classroom Organization, and Instructional Support. The scores range from 1-7, with a 1 indicating that something was not observed and 7 being consistently observed. The observation is done in 6 20 minute cycles and the scores are averaged. Together we created our goal for the year, including benchmarks to track progress, which is summarized below in Figure 2.

**FIGURE 2**

| *Goal:*<br>The team will demonstrate that school readiness is achievable through play based learning environments that meet the required standards and guidelines. | *Expected Date:*<br><br>*June 2018* |
|---|---|
| *Benchmark 1:*<br>• *Creative Curriculum will be implemented in an open ended environment in which children can explore as a choice.*<br>• *Classroom schedule will be altered to support more choice and autonomy.*<br>• *CLASS observation will be completed in September & December on Educators; results compared to control group and shared.*<br>• *Children's outcomes from Teaching Strategies compared to control group in September & December.*<br>• *Create action plan for improvements needed.* | *December 2017* |
| *Benchmark 2:*<br>• *Determine progress of action plan.*<br>• *Teacher interviews in pilot and controlled classroom.*<br>• *Revise action plan if needed.* | *February 2018* |

| | |
|---|---|
| ***Benchmark 3:*** <br> • *CLASS observation will be completed again on Educators; results compared to control group and shared from September until now.* <br> • *Children's outcomes from Teaching Strategies compared to control group from September until now.* <br> • *Create a plan for change.* | ***April 2018*** |
| ***Benchmark 4:*** <br> • *Propose plan for change to leadership team.* <br> • *Invite 2 more pilot classrooms to join.* | ***June 2018*** |

In December of 2017, we were able to reflect on our first benchmark completion. The data from both the CLASS observations and child outcomes show evidence that there may be a correlation between increased student success and play-based learning environments in preschool. The educators were able to demonstrate their ability to offer more concept development opportunities, which proved beneficial to the progress of the children. In only 3 months of pilot work, such positive data was promising that it would continue to improve and increase awareness of the benefits of play-based preschool. The pilot classrooms set the example that preschool classrooms are still able to meet state standards and guidelines, while offering a more open- ended curriculum and individualized approach to learning.

In February 2018, we took some time to reflect on our progress, as well as reviewed our action plan. In April, we will again conduct a CLASS observation, as well as compare child outcomes to see the progress and growth during a longer span of time.  Once we have the data collected and analyzed in April, we are planning to present this pilot classroom and its results to the leadership team within our program. It is our hopes that they too will see the benefits of incorporating critical thinking skills in the preschool classroom in the setting of a play-based environment. We will propose to the team that we open 2 more pilot play based classrooms in the Fall of 2018 to track and monitor progress. The educators, as well as myself, who have

already participated in the pilot will help to develop a training plan for the new pilot classroom educators, as well as to utilize for all staff in the future.   Ultimately, our end goal is to offer a fully play based, high quality, Early Childhood Program.

## EXPLORING PILOT PROGRAMS IN MY COMMUNITY

In an effort to better understand the planning, implementation, and evaluation of pilot projects, I reached out to community partners who are currently using this practice in their organization. The knowledge I gained through the interviewing process was invaluable, as it provided me with information that from direct experiences. I was particularly interested in responses to the following questions:

1. *How did you achieve staff buy in for the pilot?*
2. *What are some benefits and barriers that you have faced when implementing a pilot? How did you overcome them?*
3. *How long would suggest a pilot to last?*
4. *How did you assess progress or success in your pilot?*
5. *What would be the best next steps after the pilot is completed?*

The information gained from both interviews helped me to reflect upon the pilot projects I have conducted thus far, comparing similarities, but also recognizing things I may have done differently.

**Lowell Collaborative Preschool Academy**

For this interview, I sat with the Center Director for a pilot preschool program that works in collaboration with the Lowell Public School system, in an effort to demonstrate the need for Universal Pre-K.  She acknowledged that pilot projects require collaboration and cooperation from both sides. This was something that was identified as both a benefit and a barrier, as it can take some time to be on the same page.  She also shared how imperative it is that staff not only understand and explain the mission or goal of the pilot, but that they actually support the work

that is happening.  She expressed how valuable data shares were for successful programs, which entailed providing all research and data collected in their plot program being communicated and shared out continuously with all staff in an effort to continue to improve and highlight successes. She feels as though this really kept them motivated and excited about the innovative work that they are doing.  One of the most interesting take aways from our interview was some valuable insight into putting too many parameters around a pilot program, instead of being open to what happens. She gave the example that although the grant for her program was written around supporting universal pre-K, she must remain open and accepting of alternatives.  She stated that it is hard to highlight the benefits of something when you aren't clear on what it holds an advantage over. While her grant is written for 3 years, she stated that a pilot program should last as long as it needs to, as long as new goals and benchmarks are set for the pilot, your work can truly be endless.

**Revising Massachusetts Guidelines Pilot**

The state of Massachusetts developed a set of learning standards that are required for all programs that are licensed by the Department of Early Education and Care to include in their curriculum. The guidelines are research based and support children's learning across all of the domains. These guidelines were first developed in 2003. Recently the state of Massachusetts has decided to make revisions to these guidelines to meet new expectations, as well as ensuring that they are aligned with the kindergarten expectations across the state. They have completed a draft of revised guidelines and have asked programs to volunteer to pilot these guidelines and give feedback. While this pilot is still in its very early stages, having the opportunity to interview someone who helped to plan the project was helpful in learning about the importance of doing research prior to designing a pilot study. The woman I interviewed explained that they had

researched other states guidelines for a full year before drafting their own and planning their pilot. She also emphasized how important it was to ensure that the implementers of the pilot guidelines were the actual educators and programs that were actually 'living' the roles. She highlighted that the pilot would not be successful if people who were not in the direct line of care simply reviewed them. Another interesting aspect of this pilot was that it was voluntary. This really ensured that the programs who were involved in the pilot were fully invested and committed to the work. She spoke often about the cycle of implementing, reflecting, and revising, even joking that it really could be an endless project. She shared that setting timelines for expectations is vital to stay on course. While programs are still currently working on piloting implementation, evaluation of feedback is an important piece of this project. There was great discussion around creating an evaluation tool that would give highlight the important that were looking for. Incorporating the goals of the pilot into the evaluation was a technique that worked best for them.

## BREAKING DOWN THE PILOT CONCEPT

When researching 'pilots' you may come across various definitions that can include pilot studies, pilot project, or pilot experiments. Although different terms, their meaning all equates the same purpose; small scale modifications that are implemented for observation, data collection, and analysis before making a large scale change. There are multiple reasons one may decide to do a pilot project or study. One reason is to reduce risk, as executing any change can have the potential to create problems. Implementing a pilot can help not only identify those risks, but also to find ways to reduce or eliminate those risks all together. On the opposite end, a pilot project can also highlight the advantages of a proposed change, which can be used to ease the larger scale adjustments in the future. Whether it be assessing risks or emphasizing benefits, a
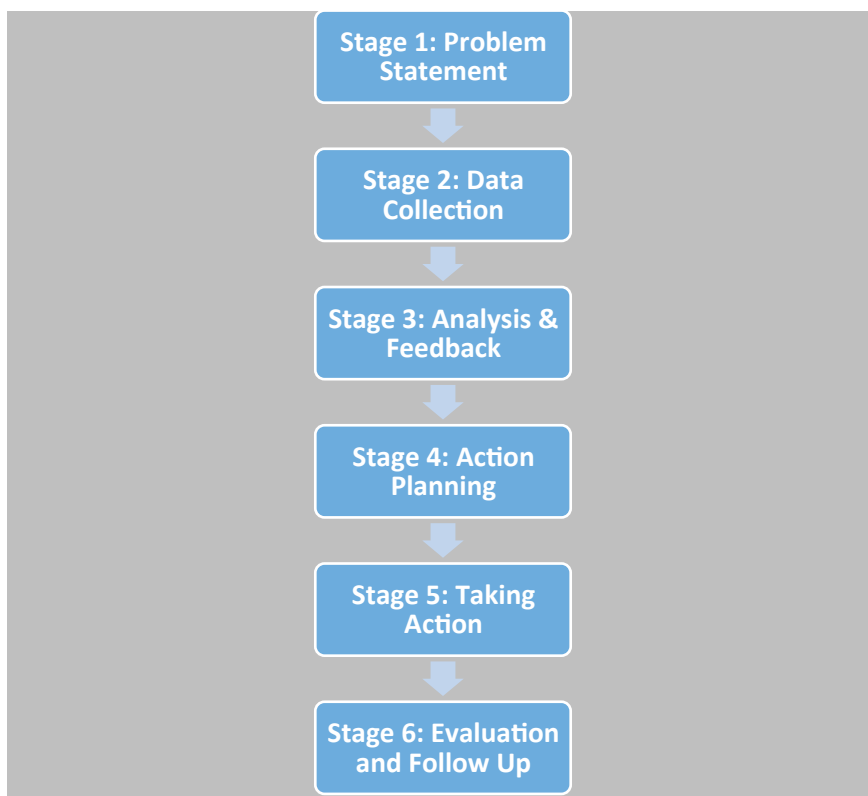
pilot project allows others to see 'with their own eyes', the potential of the work. Piloting allows

for meaningful and intentional decision making, supported by data and facts, which often

contributes to the success of any change or alteration. In order for a pilot to be truly effective,

there is much prepping and planning that needs to be in place, before implementation even

occurs. Most pilot projects are not well designed; as there were no clear objectives, planning, and

no clear criteria for success and sustainability. (Thabane etl al., 201) Taking into consideration

pilot projects that I have implemented, interviews with leaders of community pilots, my work in

the Critical and Creative Thinking program, and literature reviews I have conducted, I have

developed the following system for the planning, implementing, and evaluating pilot projects.

**Using Action Research to Plan and Design a Pilot**

More often than not, pilots are put into action without crucial information collected

before the change was made, therefor directly impacting the validity of the outcome. (Kasunic,

2004)  The first step in a successful pilot is identifying the 'problem' or 'change' you wish to

seek. I was first introduced to action research in the Spring of 2018 through the CCT Action

Research for Educational, Professional, and Personal Change course. Early on, I began to make

connections between pilot projects and action research. When conducting action research, you

are studying your own situation to improve the quality of processes and results within it.

(Schmuck, 2006) When you are planning a pilot, you are doing so to do just the same, making

improvements. In action research, there are two models; proactive and responsive. Planning a

pilot project using proactive action research could include piloting a new practice based on

reflections of the past and present. In this, the data would be collected after the new practice was

already put into place, analyzed, and refined. When conducting responsive action research, on

the other hand, data would be collected prior to implementing the practice. The change to be

piloted derives from the data collected. Regardless of the model chosen, there are several steps that can be taken to plan out a pilot project. In his book, *Action Research for Educators,* Daniel Tomal breaks down the stages of action research that lends itself nicely to the planning and designing of a pilot. These stages are highlighted in Figure 3 below. Using these stages of action research, I will make the connections to planning and designing a pilot project.

**FIGURE 3**

```
Stage 1: Problem
Statement
      ↓
Stage 2: Data
Collection
      ↓
Stage 3: Analysis &
Feedback
      ↓
Stage 4: Action
Planning
      ↓
Stage 5: Taking
Action
      ↓
Stage 6: Evaluation
and Follow Up
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(Tomal. 2010)

**Stage 1: Problem Statement**

Often pilots are implemented to introduce change. When creating a problem statement, one may identify their problem as the change that they wish to make. For example my desired change was to lead a program that exclusively offered play-based learning environments. My problem statement was that I found myself disappointed with the lack of play in preschool, with a now stronger focus on academics being considered the current best practice. A large emphasis had been placed on direct instruction, which I felt was developmentally inappropriate for preschool aged children. My pilot was then designed around creating a classroom that encompassed a play-based curriculum.

**Stage 2: Data Collection**

As data can help drive the pilot, it is important to identify in the beginning what data you are going to collect and how you analyze this data. Examples of data collection can include observations, questionnaires, surveys, interviews, or assessment. In some situations, pre and post data is collected to highlight the impact of the change. Referring again back to my Play-Based Learning Environments pilot as an example, data was collected before the classroom environment changed, which helped to establish a baseline or starting point, as well as 3 months after the implementation of play based curriculum.

**Stage 3: Analysis and Feedback**

It is important to understand what the data is telling us. You must establish the 'who, what, and when of data analysis, prior to implementation and data collection. Analyzing the data that is collected during your pilot project is crucial to identifying next steps. It is important to remain objective and impartial when reviewing the data. It can be helpful to look at the data with a

group and even have someone outside of the work you are doing look it over. While you always want the data to support your problem statement, this is not always the case. If it does not, that is where the next step, action planning, becomes the most important.

**Stage 4: Action Planning**

Planning out the action steps, prior to the action, sounds almost obvious. However, it can be disastrous to a pilot project if it is not done with attention to detail. This is where you use the information or data you have gathered or analyzed to plan out the next steps of your work. Setting clear and realistic goals, benchmarks, and due dates help to keep the project on track. It allows others to know what to expect. Action planning may occur several times throughout the course of a pilot, as frequent reflection and data analysis may occur, creating need to make modifications or adaptations.

**Stage 5: Taking Action**

Taking action is your pilot project. Whatever practice or change you are piloting is the action that you are taking. After the planning and prepping, this is where your pilot begins. While the course of action may be altered as the pilot continues, this step may also be revisited or modified. It is important to follow the steps outlined in the action plan that you have created for the pilot, as they are essential to the work.

**Stage 6: Evaluation and Follow Up**

Lastly, in pilot projects, it's necessary to have a plan for evaluation. You need to know how you will assess the work of pilot project before you even begin. This can largely mean the analysis of the data; however, it must also include time for ongoing reflection and change. Evaluation

should not occur at the 'end' of your pilot, but instead be incorporated into your action at various times throughout implementation.

While action research is not the only effective model for the planning and designing of a pilot project, you can see how using it can enhance the strength, stability, and validity of the outcomes you wish to produce.  Careful planning and designing is crucial to the success of any pilot project prior to its implementation.

**Training & Professional Development**

It is easy for the individual or team designing the pilot to understand the goals and expectations. Typically these goals and expectations are carried out by a separate group of implementers.  These participants may or may not have the capacity to support the action. That is where training and professional development comes in place. Offering professional development opportunities for participants in pilot projects ensures that they fully understand their roles and responsibilities and they are able to implement them successfully. Through this professional development, it is important to develop a sense of shared vision. In Peter Senge's  and colleague's 1994 book, *The Fifth Discipline Fieldbook,* Senge explains shared vision as having a collective sense of what is important and why. Shared vision shows where we want to go and what we would like to do to get there. This allows all participants in the pilot to be invested in the work they are doing.

Professional development should be aligned with the goals of the pilot. Ongoing opportunities throughout the pilot will help support the success. Pilots are typically put into place to implement a change; therefore you likely will be asking participants to try something that is not their normal practice. An example of this would be the professional development offered to

the original members of the 'Meetings of the Minds' group around Otto Scharmer's Generative

Theory. This helped the members of group to become aware of and enhance their

communication skills. There are lasting benefits of professional development and training,

which include creating a work culture that encourages, supports, and invests in the development

of their employees, boosting employee morale, and increasing employee motivation. Each of

these benefits can only enrich the outcomes and success of a pilot project.

**Communities of Practice**

Communities of Practice (CoP), groups of people with like interests and goals who meet

to discuss and reflect on specific domains or practices. (Munir & Thota, 2011) are a successful

strategy to support professional development. The 'Meetings of the Minds' group , as well as the

'Trauma Environments Training' were both built around concepts of a CoP. The CoP space

helps to support idea sharing, conflicts, and questions. In a pilot project, it would be beneficial

for the involved participants to engage with other individuals who are experiencing the same

situations. This newer style of training helps to foster peer to peer learning using a collaborative

approach of knowledge sharing. It can sometimes be difficult to create a CoP that is effective, as

it depends on the motivation and engagement of its members. Given that the individuals of a

pilot project would all be invested in that same goal, the success of the group would likely be

high. The end result of an effective CoP would be that participants are able to gain the skills and

knowledge needed to enhance their practices and gain a social network of resources.

**Reflective Supervision**

After pilot implementation has begun, it is important to provide ongoing support and

feedback to those involved. Reflective Supervision is a model intended to be a collaborative

approach to supervision between a supervisor and supervisee. This space provides the

opportunity for professional development and personal growth. There are three parts to reflective supervision- reflection, collaboration, and regularity. *(*Parlakian, 2001*)* Reflective supervision does not focus on task-oriented discussion, but instead discussion on experiences, thoughts, and feelings. Reflecting is not always easy to do and often comes with practice. In order for reflective supervision to be valuable, a relationship of trust, comfort, and honesty must be built.

Reflective supervision is driven by active listening. Active listening is a person's willingness and ability to hear and understand what is being said, it involves six skills: paying attention, holding judgment, reflecting, clarifying, summarizing, and sharing (Hoppe, 2006) Reflection can be empowering for an individual, as they are able to recognize their own strengths and areas they may want to work on. The collaboration component of reflective supervision is essential as it allows for open communication between the supervisor and supervisee. It is important that reflective supervision be held on a consistent and scheduled basis, as it shows a respect of each other's time. Making space for reflective supervision shows your commitment to professional development and growth. Utilizing reflective supervision in the implementation of a pilot project is an effective way to support the action and evaluation of the progress. It shows dedication and commitment to work, as well as appreciation and respect for those doing the implementing. Using this tool can help to identify any potentials barriers, challenges, or difficulties before they have a detrimental impact on the pilot. Christopher Johns, a nursing professor, created the John's model of reflective practice that can be helpful in introducing and guiding reflective supervisions. His model is highlighted below in Figure 4.

**FIGURE 4**
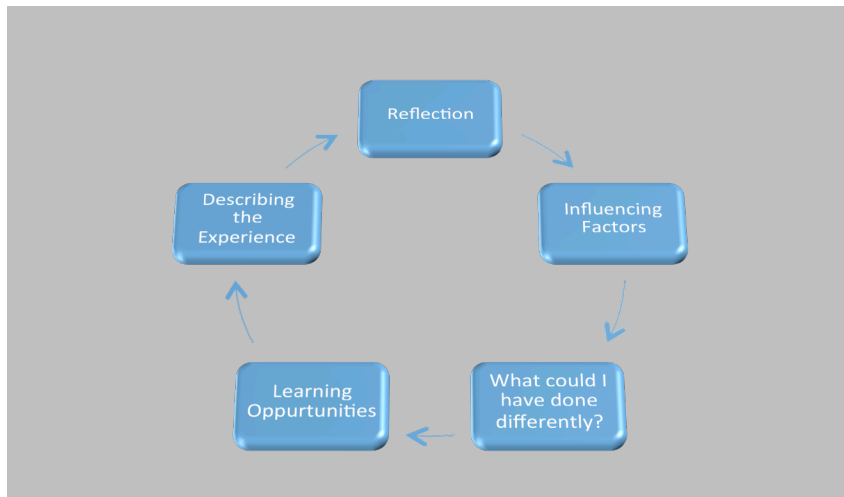


## Evaluating, Reporting Results, & Making Recommendations

A pilot's success is not validated without a thorough evaluation process. Evaluation is a systematic assessment of the operation and/or the outcomes of a program or policy, as a means of contributing to the improvement of the program or policy. (Weiss, 1998) It is important to collect and analyze useful data that will enable you to report out on your findings. Although evaluation tools should be determined in the planning stages of a pilot, it is critical to report out on the analysis of these tools to help build constituency. Reporting on evaluation results should focus on efforts and effects. It should highlight the change or efforts that were made and the effect that was direct result of it. Reporting out should include an explanation of the methods used to evaluate the pilot, as well as information on when and where the data was collected. These details allow the audience to know that the information you are sharing is real and current. (Council of the National Postsecondary Education Cooperative, 1999) Data shared should also include an element of self-assessment and feedback from participants who are implementing the pilot.

A comprehensive evaluation will compare the results of the report to the pilot's objectives. Key findings should be identified, as well as recommendations. The report should include a reflection on what worked well and what did not.  In doing this, you must identify what factors contributed to the success of the pilot, as well as what factors did not. It is important to include what will need to a happen next, as this will only strengthen the pilot's progress. It is important to leave space for modification and adjustment throughout the process of a pilot project. Using information from reflective supervision and evaluations helps to drive the need for any changes that may need to be made. This is why ongoing evaluation can be proactive in identifying possible conflicts or issues.

**Barriers & Challenges to Pilot Projects**

Pilot projects are typically implemented prior to making a larger change, as data from pilot projects can help influence decision making and more thoughtful planning of a larger roll out. However, pilot projects are not always successful. In some instances it does not have any impact on the change, success may not translate to a larger scale implementation, it can be too costly, or take too long. (Hundley & Van Teijlingen, 2001)  Each of these barriers will be discussed further to help identify when a pilot may not be the best option or even not an option at all.

1) **Pilot was implemented; however, the results were not used to influence the change.**
   In some situations in which a pilot was implemented, the results or findings have little or no impact on the larger scale change. Sometimes this can be due to the fact that the pilot was not successful. It can also be that who have the power to implement the larger change simply did not take the information gathered during the pilot and apply it. Mandates and regulations can sometimes impact your ability to pursue the larger scale

change needed. For example, if a program conducted a pilot study that produced evidence that smaller classroom size indicated higher child outcomes, a program may not be able to implement this change if they did not have enough classrooms or staff to do so. It is important to recognize if sustainability is an option in the planning stages of the pilot. In some situations, a pilot project may be conducted for informational purposes only. Pilot projects can be informative not only to the researchers conducting them, but also others who are involved in similar work. (Thabane et al, 2010)

2) **Pilot was implemented on small scale; but not realistic on a larger scale.**

Because pilots are often implemented on a smaller scale, regardless of what their data are telling them, it is not a sure thing that it will be as successful in larger numbers. If too many modifications are needed to support the success of the pilot, that may be a cause of concern for implementation. For example, if the evaluation of the pilot indicates that there are still some areas that need to be further developed in order for it to be successful, these changes should still be made in a pilot format. In these situations, it is important be mindful of the larger picture.  When a pilot may not be ready for full implementation, there is a benefit to prolong the pilot, if possible.

3) **Pilot was implemented, but full implementation is too costly.**

Sometimes a pilot project can be successful due to added resources and supports that are put into place. For full implementation, the costs may simply not be feasible. For example if pilot data indicates that the addition of an extra teacher in a classroom produces higher child outcomes, a program may not be able to afford the cost of adding on several new employees. In a situation like this, it may be decided to make the change slowly over time or include it in budget proposals for the following year.

**4) Pilot cannot be implemented because the change needs to occur immediately.**

In some situations, the change needed is inevitable. Whether it is a new law, regulation, or organizational change, sometimes the change needs to happen and it needs to happen quickly. Effective pilots do take time to plan, implement, and evaluate. An example may be that a program needs to change their curriculum due to a regulation that has recently changed and full compliance is required by a specific date. In these types of situations, a pilot is simply not an option.

## KNOWING WHAT I KNOW NOW

At the beginning of my reflection on my work in CCT at Umass Boston, and my work with piloting I cringed at the fact that I had no knowledge or experience in piloting, but had decided to 'wing it'. This synthesis inspired me to research the concept of piloting and reflect on my own experiences. To my surprise, there wasn't much literature on the concept of piloting, but instead, reviews of other pilot projects. I quickly learned that there was no clear process that must be followed for an effective pilot project. Few research studies or textbooks cover the topic of pilot projects with attention to detail. (Thabane et al., 2010) The University of Surrey highlights in their Social Research Update in 2001 that pilot projects or studies are often under discussed, underused and underreported. (Hundley & Van Teijlingen, 2001) This led me to change the direction of my synthesis to include how I used skills learned through the Critical and Creative Thinking program to influence my personal pilot projects. Reflecting back on my coursework, projects, community interviews, and research I realized that there was no need for me to reinvent the wheel. Instead, I created my own system for the planning, implementing, and evaluating of pilot projects.

In retrospect, I am now able to identify what I would have differently in each of my pilot projects. My first pilot was the 'Meetings of the Minds' pilot group. Prior to implementation, I had not identified how we would measure our success or evaluate the pilot. Several weeks into the pilot, we decided that we needed to evaluate this and adopted a communication skills survey. If this was identified in the planning phase we could have had better pre/post data, as well as chosen a potentially better assessment, given that we had more time to do so.  In this situation, I did not fully think through the process of planning. Realizing now how important the design step is to an effective pilot, I feel a strong planning would have strengthened my project.

Trauma Sensitive Environments was a pilot train the trainer model that led to full implementation. In this pilot, the initial design phase was strong however there was not a strong evaluation to highlight the effectiveness. The group was evaluated through participant feedback, which was valuable, but didn't directly relate to our objectives. The objective of the pilot was for educators to share, learn, and implement strategies in their classroom to foster a trauma sensitive environment. A stronger evaluation tool could have encompassed some pre/post classroom observation data, social-emotional child outcomes comparison, and self-assessment. Understanding now how important it is to choose evaluation tools that will highlight efforts and effects; I recognize that this area could have been stronger in in my work.

The most recent pilot project that I have conducted, which is still in progress, is the Play Based Learning Environments pilot. While this pilot is still in its early implementation stages, I already have recognized the need for training and ongoing professional development. This pilot has asked educators to implement a teaching practice that is not familiar to them and while they are doing the best they can, training would only enhance their ability to implement a play based learning curriculum and environment. One example of this was with the 'Meetings of the Minds'

pilot group. Prior to implementation, I had not identified how we would measure our success or evaluate the pilot. Several weeks into the pilot, we decided that we needed to evaluate this and adopted a communication skills survey.  If this was identified in the planning phase we could have had better pre/post data, as well as chosen a potentially better assessment, given that we had more time to do so.  We are not at our stages of reporting just yet, however, my work has provided me with a stronger understanding of what needs to go into the reporting of project data to make it impactful.

I realize now that the work in this synthesis project really began when I first enrolled into the Critical and Creative Thinking program. 'Thinking about thinking' was not something I had ever done before. Each course challenged me to identify areas of my professional and personal life that I wanted to reflect on and improve. The skills that I have learned are truly invaluable and are put into use on daily basis.  I have come to recognize that pilot projects, when appropriate, is a tool that works very well for my program. It has created a culture in my organization that staff input is not only valued but encouraged. Being proactive in some of our major changes has allowed for less problems and positive staff morale.

**A. Sample Agenda**



*Meeting of the Minds*

*Agenda*

*April 13th, 2016*

*12:30-2:30*

**TOPIC:** *Classroom Management Systems*

➢ **Silent Mediation** – *Group will sit in silence for 5 minutes.*

➢ **Review of Goals/Review of Rules-** *Recall of previously set goals and rules.*

➢ **Check-In-** *Members will share what is on their minds.*

➢ **What do we know?** *Members of the group define what this means to them.*

➢ **What do we want to know?** *What are some questions we have that may need clarifying?*

➢ **Discussion.** *Open dialogue amongst the group.*

➢ **Wrap Up.** – *Members will share finals thoughts*

➢ **Closing & Feedback.** – *As a group, discuss what did we learn? What worked? What didn't?*

## B. HTC Communication Self-Assessment

Communication Skills – Self Assessment Inventory

| Communication Skills – Self Assessment | | | | | |
|---|---|---|---|---|---|
| | Please tick the box under the score which you feel best describes you | | | | |
| | Exactly Like me | Very like me | Somewhat like me | A little like me | Not like me at all |
| Statements | 5 | 4 | 3 | 2 | 1 |
| 1. I am open minded and am willing to change my viewpoint based on the valid opinion of others | | | | | |
| 2. I prepare for all communications and think things through before I speak | | | | | |
| 3. I always tailor my message to suit the person(s) I am talking to | | | | | |
| 4. I find it easy to listen to what other people have to say without interrupting | | | | | |
| 5. I am good at making eye contact with people when I am talking to them | | | | | |
| 6. I am not intimidated by situations where I must communicate with difficult employees | | | | | |
| 7. I am confident when I talk to people and speak clearly without mumbling | | | | | |
| 8. I am good at getting my point across in a clear, concise manner without waffling | | | | | |
| 9. I find it easy to concentrate on what others are saying and don't lose my focus | | | | | |
| 10. I don't start planning my response whilst the other person is talking | | | | | |
| 11. I don't think that my opinion is the most important in the room | | | | | |
| 12. I only speak up if I have something valuable to contribute to the conversation and I avoid talking just for the sake of it | | | | | |
| 13. I make a conscious effort to match my body language to the message I want to convey | | | | | |
| 14. I am good at reading the body language of others | | | | | |
| 15. I can keep my cool when talking to other people even if I feel angry about what they say | | | | | |
| 16. When other people in the group are quiet, I encourage them to contribute | | | | | |
| 17. I don't shout and point at people when we have a heated conversation | | | | | |
| 18. When group discussions get heated, I am good at keeping everyone calm and on the point | | | | | |
| 19. I feel comfortable holding meetings | | | | | |
| 20. I am good at summarising the key points of conversations which I have with people | | | | | |
| Column Score (number of ticks x rating) | | | | | |
| Overall Total (five column scores added) | | | | | |

Result:
76 -100 :  You seem to have good communication skills
51 – 75 : There is a good foundation there
26 – 50: You have a lot of work to do to develop your communication skills
0 – 25: Did you score it correctly?
On a separate sheet of paper, summarise your strengths and areas for improvement with regard to your ability to communicate. Look particularly at your lower scoring answers and this will give you some indication as to what aspects of communication you need to focus on.

# References

Best Practices for Data Collectors and Data Providers. (1999). *National Postsecondary Education Cooperative*.

Community of Practice: Education Focus. (n.d.). Retrieved March 8, 2018, from <http://hbswk.hbs.edu/archive/2855.html>

Guidelines for Establishing Communities of Practice. (n.d.). Retrieved April 1, 2018, from <http://policies.griffith.edu.au/pdf/Establishing Communities of Practice.pdf>

Gunngulson, O. (2016) Lecture 5 & 6 Notes.

Parlakian, R. (2001). Look, listen, and learn: Reflective supervision and relationship-based work. *Washington, DC: ZERO TO THREE*.

Hoppe, M. H. (2006). The Active Listening Skill Set. In , *Active Listening: Improve Your Ability to Listen & Lead*.Center for Creative Leadership.

How can professional development enhance teachers' classroom practices? (2017). *Teaching in Focus*. doi:10.1787/2745d679-en

Johns, C. (2017). *Becoming a reflective practitioner*. Chichester, West Sussex: Wiley Blackwell.

Martineau, J., & Johnson, E. (2004). *Ideas Into Action Guidebooks. Making the Most of Formal Leadership Programs*. Greensboro, NC: Center for Creative Leadership.

Peak Performance Center. (n.d.). Retrieved March 08, 2018, from <http://thepeakperformancecenter.com/>

Salem, R. (2003).. "Empathic Listening." *Beyond Intractability*. Eds. Guy Burgess and Heidi Burgess. Conflict Information Consortium, University of Colorado, Boulder.

Scharmer, O. (2003). Enacting Emerging Futures [Digital image]. Retrieved from <http://www.mspguide.org/sites/default/files/images/Enacting_Emerging_Futures.png>

Schmuck, R. A. (2006). *Practical action research for change*. Thousand Oaks, CA: Corwin

      Press.

Senge, P., Kleiner, A., Roberts, C., Ross, R., & Smith, B. (1999). *The Fifth Discipline Fieldbook*.

      London: Nicholas Brealey.

Thabane, L., Ma, J., Chu, R., Cheng, J., Ismaila, A., Rios, L., . . . Goldsmith, C. (2010). A

      tutorial on pilot studies: The what, why and how. *BMC Medical Research Methodology,*

      *10*(1).

Thota, H., & Munir, Z. (2011). *Key concepts in innovation*. Basingstoke: Palgrave Macmillan.

Tomal, D. R. (2010). Action research for educators. Lanham, Md: Rowman & Littlefield

      Education.

Van Teijlingen, E., & Hundley, V. (2001). The importance of pilot studies. *Sociology of Surrey:*

      *Social Research Update:,* (35).

Weiss, C. (1998). Have we learned anything new about the use of evaluation? *The American*

      *Journal of Evaluation, 19*(1), 21-33. doi:10.1016/s1098-2140(99)80178-7

Wenger, E., McDermott, R. A., & Snyder, W. (2010). *Cultivating communities of practice: A*

      *guide to managing knowledge*. Boston, MA: Harvard Business School Press.