

A Senge's Model on the Practical Domain for Developing Team Learning Skills

By

Ravee Phoewhawm, PhD
Department of Innovative Business Management
International College, Chiang Mai Rajabhat University
202 Changpuak Road, Amphur Muang
Chiang Mai, Thailand, 50300
Tel +66 53 885980, Fax +66 53 885983
E-mail: rtc999@yahoo.com

Abstract

For human resource managers that want to foster a team learning environment that promotes a way for members to rehearse, experiment, assess, and reflect the practice has to see how the tools can be truly integrated. According to Senge, team learning is a team skill that requires practice fields as a concept for team members to practice together so that they can develop their collective learning skills. This study attempts to extend the work of Senge's theory of a practical field with in-depth information so that the model can be utilized by human resource manager for supporting the discipline of team learning. Literature works are done to revise the four practical precepts. The refined model is applied as a case study methodology on an organization resembling the conceptual procedure. An analysis is provided for developing the four team learning skills, along with a discussion and conclusion at the end of the study.

Keywords: Assessment, Collaboration, Dialogue, Experimenting, Innovation, Performance, Practice, Rehearsing, Reflecting, Team Learning,

1. Introduction

For human resource managers that want to foster a team learning environment that promotes a way for members to rehearse, experiment, assess, and reflect the practice has to see how the tools can be truly integrated in order to gain a positive impact, otherwise the learning itself can become utterly redundant and difficult to maintain on a consistent basis. In Peter Senge's "*The Fifth Discipline: The Art & Practice of the Learning Organization*", he analyzed that team learning is a team skill that requires 'practice fields' as a concept for team members to *practice together so that they can develop their collective learning skills* (Senge, p. 258, 2006). According to Senge, *team skills are more challenging to develop than individual skills*, therefore it's imperative that 'practice fields' need to be established so that colleagues are engaged in an activity that is directed towards *developing their collective learning skills*. He states that the total absence of meaningful "practice" is probably the predominant factor that prevents associates from evolving into an effective learning group. Drawing upon the work from Donald Schon,

Senge highlights the idea of practice as a tool for making a diagnosis to see how the facts come to reveal themselves and reconfiguring them to serve the greatest benefit. In addition, he sees practice as a form which allows the freedom to experiment with a phenomenon so that the team can study the phases of action and grasp the consequences of particular actions when they're taken. By manipulating with the actions, Senge believes that the *changes in the environment can be eliminated and complexity can be simplified by uncoupling variables that are interlocked in reality*. Senge applies the analogy of a basketball team and a symphony orchestra to make the assertion of a practice field by saying the following: *"They vary the pace of the action – by slowing down the music, by running plays in slow motion. They isolate components and simplify the complexity – by playing individual sections, by running plays without a competitor. They reverse what is, in the real performance, irreversible – they replay the same section over and over, they rerun the play over and over."* Despite advanced technology and having access to intelligence, Senge believes that this style of practice is lacking for a team to truly become the ideal entity that collectively and collaboratively learns together in permanence within the organization. Senge provided four ideas for his model of a practice field. The first is rehearsal. Under this notion team members can get a better feel of understanding with the abstract, engaging in intellectual debate of ideas, and learn each others' rational thinking. Second is experimentation. Sometimes the team is forced to make a decision on specific situations that is under great time pressure. Experimentation can help make the decision process become a lot more professional. Third is assessment. With an assessment team members are given the opportunity to form their reasons of different decisions. The fourth is reflection. Reflection enables associates to contemplate as a team and ponder on how they might arrive together at making better decisions.

Since the work on the practice field has been written, there has been a scarce source of literary studies that have contributed to the theory; particularly for the human resources managers to obtain a full understanding on how it should it be actually implemented. In this paper, the author attempts to provide a theoretical exposition of Peter Senge's model on the practical domain for developing team learning skills so that human resource managers can get a better idea in designing a team learning environment.

The purpose of this work is to present the idea of 'Senge's discussion on having a practice field' with in-depth information so that human resource manager applies the model for supporting the discipline of team learning. The initiative is to make a contribution to a better understanding of the practical field (which consists of the four ideas) that is related to team learning. The research poses the following four questions to be focused upon:

1. *“How does a team learn when the course is in the form of rehearsing?”*
2. *“How does a team learn when the course is on having to do an experiment?”*
3. *“How does a team learn when the course is in making an assessment?”*
4. *“How does a team learn when the course is on reflecting?”*

The conjecture of Senge’s practical domain is examined in a case study format on a documentary series about pit crews who are seen as playing an important role in helping their driver win a racing competition. First, the study begins with a literary illustration on the four ideas that were mentioned in Senge’s model of the practice field. Second, the refined model is applied as a case study methodology on an organization that is engaged in an event which resembles the concept of the procedure. Third, an analysis of Senge’s model for developing team learning skills through the perception of the practical domain is offered. Finally, the author provides a discussion and conclusion for human resource manager’s application of Senge’s practical domain.

2. The Practical Domain of Team Learning through Peter Senge’s Perspective

This part of the section showcases the literary details of the four elements that make up the practical domain of team learning. Each of the elements had been theoretically reviewed from scholars who have done an in-depth work with the meaning and how it has been utilized in a team setting. The work incorporates the ideas and concepts in order to provide a greater detail for the human resource manager in designing the application of a team learning environment.

2.1 Rehearsing

Rehearsing is about measuring the extent of alignment to see how firm the team is in executing for actual performance in the next event (Kontogiannis and Malakis, 2009). Team leaders or members provide the rating for the ability to execute as a team. Rehearsing provides an opportunity to be engaged in the presence of others by analyzing the movements and coordinating with them (Välikangas and Romme, 2012). In addition, individuals observe the capabilities of the team and see that if these abilities coincide with the mission or intended outcome (Lloyd, 2009). While engaging in the rehearsal the opportunity presents itself for team mates to evaluate the chosen process and principles that are intertwined for performance as well as to make critical comments (Foverskov and Binder, 2009). As a learning process for a team, the extent of being innovative or creative in performance has to be factored in with the

immediate environment, the social environment, and the organizational context in order to realize how much there is to discover before being affirmed to the details (Dobny, 2011). In an example of rehearsing, members of the legendary rock and roll group “KISS” set their sights on being the hottest band in the world by constantly working hard on finding the right set of rhythm and vocals for a song that their audience would appreciate listening to. With the song already a smash hit with their fans, members of KISS would formulate in the studios on ways they would perform the song live on stage so that the concert goers can truly say that this was one of the most memorable events in their lives. With the song as the main selling point, the band would use their costume/make-up, pyro-techniques and smokes, and board lights as added props to spice up the experience of listening to a live song. From timing to ensure that their musical performance is flawless, to getting ideas erupted during the jam session, to having cues that call for certain display of action while making sure that they are directing the raw energy towards the crowd, the rehearsals made KISS developed the mastery on managing stage performance. Not only did the rehearsals provide the band members a solid confidence in playing the perfect song and making it entertaining for their fans but it also allowed them to seek for ways to doing it a lot better when the next occasion comes (Sharp, Stanley, and Simmons, 2013).

2.2 *Experimenting*

Doing an experiment as a team means validating or rejecting the stated hypothesis so that decisions can be made whether to move forward with another practical method or to rearrange the working system (Persons, Beckner and Tompkins, 2013). It is an action learning event that assists team members to challenge assumptions, thus enabling them to refine their practical methods of operation for delivering the necessary requirements and assured quality to the intended receiver (Kess, Tong-In, Ayutthaya and Anusornnitisarn, 2014). By experimenting, the facts or truths are presented for further discussion and setting a proper action plan that would help the team state the right frame of mind of getting closer to the desired objectives (Yeganah and Kolb, 2009). Also, flaws can be identified and improvements can be proposed for supporting the current operational concept or make some slight alterations in the idea. With the results from doing a test the team can obtain a complete answer on how and why the situation happened for the aim of discussing about the mistakes in the plan as well as on learning the lessons for preventing any misunderstandings that might occur again in the future (Ramanujam and Goodman, 2011). The information provided from the examination disseminates credibility for making decisions on policy or strategy (Jain, 2011), thus leading to a better sense of assurance on setting the aims and objectives that would most highly be attainable under a refined

scheme. According to a study done by Clements (2010), the Segoku period of Japan was the feudal system that depicted samurais vying to be retainers for a Daimyo (feudal lord). Samurais who represent their clans and schools have to go through an intense period of training to test their knowledge of swordsmanship. Their masters and fellow peers, who possess a high degree of expertise in swordsmanship, demand a strong sense of commitment in reaching the pinnacle status of being a samurai. When the samurais are not carrying out the service functions for the Daimyo they are expected to be at the dojo which is a school for training one's technique in sword handling. First and foremost, they take sparring lessons to see how much they've mastered the basics. The training becomes intense as their teachers create some life and death scenarios that examine their approaches in resolving such these events. By being placed in critical situations the teachers help their young protégé to discover some innovative or creative swordsmanship techniques in attacking or defending. The experiment of putting one's life on the line not only hones the sword fighting skills but also develops the mental fortitude where there's no slight sense of hesitation or fear when knowing that death is imminent in a battle (Clements, 2010).

2.3 *Assessment*

The team makes an assessment for the purpose of being aware or mindful of hidden factors that may hinder or support the effort for achieving the aims (Fahey, 2007), once the flaws have been discovered than the team can raise the issue to eliminate or reduce the threat. The idea of an assessment is to make the necessary configurations in designing for a better strategy/performance (Ullman and Ast, 2011) so that when the actions are executed there is a maximum usage of resources being utilized. As the team takes assessment into account individual members can make an analysis and utilize the viewpoints of fellow colleagues to sustain the official practice of administration (McCann, Selsky and Lee, 2011). Making an assessment is like looking in a mirror to get a reflection and seeing how fully equipped the team is before taking its course towards achieving the goal; if not then questions may be raised on the level of competency in team interaction (Weick and Sutcliffe, 2008). Moreover, the team can offer suggestions for refining or reforming the program/process in use. In a National Geographic presentation on killer whales there was footage of the pod working together to hone their collective hunting skill on a lone seal. The killer whales have come across a lone seal resting on a large ice flow. Before attacking their prey these whales form into a group mode of spy-hopping, which is a technique of raising the head to see what's going above the water. Spy-hopping allows them to scan and see the situation of their prey. The learning point of this event

is that the pod is carrying out the mission or targeting an objective (that is clear). As a team they assess the situation at hand to see where the opportunities are presented as well as determining where the advantages are for the team to capitalize on their strengths (Orcas Attack Seal with Waves, youtube.com).

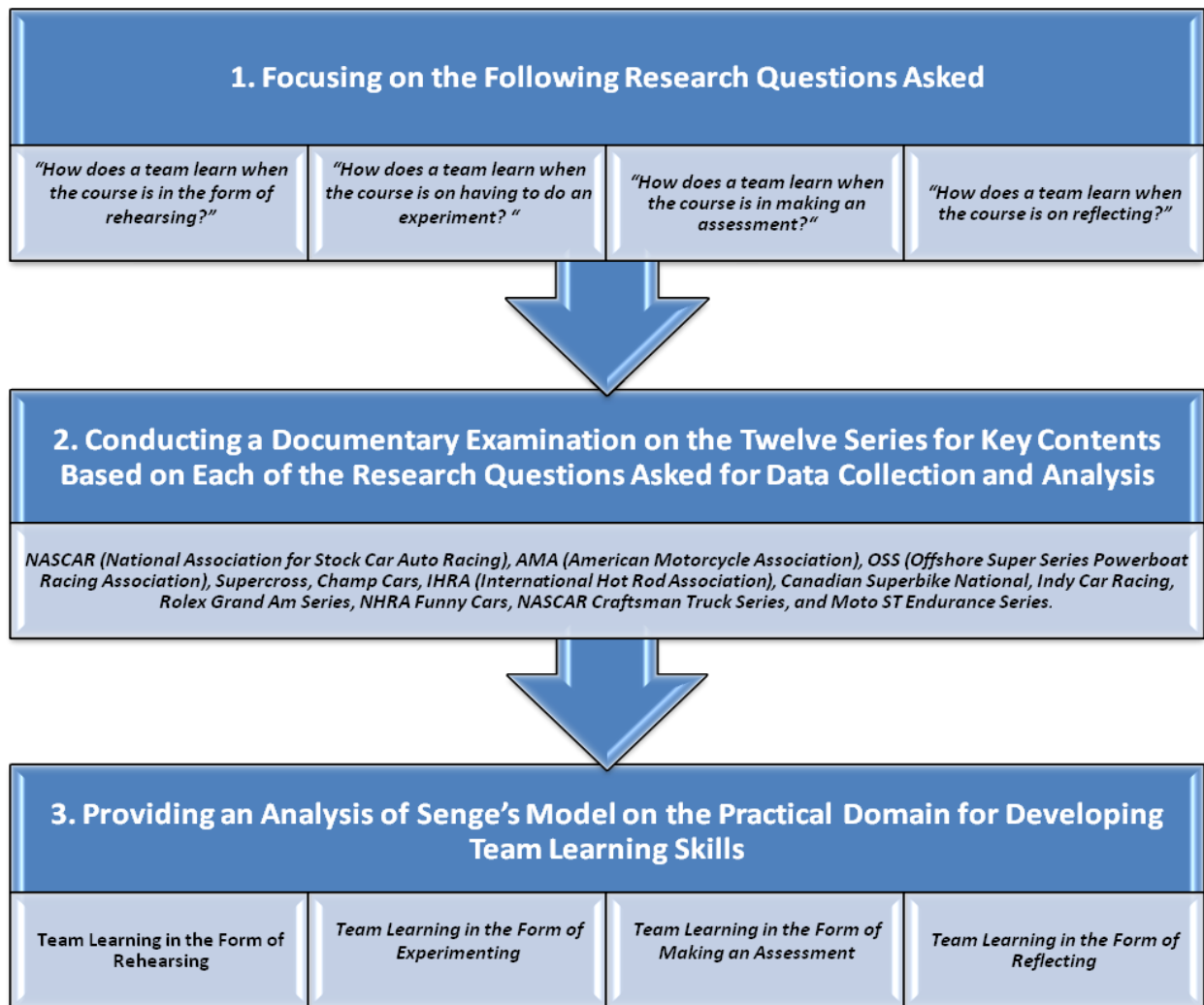
2.4 *Reflecting*

When teams reflect on the occurrence of the work performance they want to gain a sense of relativity with the operating procedures and to determine whether the systems may need to be updated or replaced with a new working paradigm (Petraeus, 2006). Team members want to gain an understanding of what had worked and what prevented the desired outcome (Donahue and Tuohy, 2007), thus ensuring themselves that all matters have been taken care of and that they can fully concentrate on the current issue without having to worry about what can go wrong. As members of the team review upon the situation they get a chance to discover any hidden concerns that may need to be addressed for the next operation. Reflecting with the recent episodes allows serendipity to flourish thus leading to innovative or creative thoughts for managing a familiar event (Tjosvold, Yu and Hui, 2004). The critical point for reflecting as a team is to see if the group has to adapt with the working environment and make some necessary changes in performing and executing (Antonacopoulou, 2006). On the case of reflecting professional ice hockey teams sometime have to make some changes into the way they skate, pass, defend, and shoot the puck as a collective unit. Teams that often go into a funk or a long losing streak have to review their tactics so that they can install a sense of competence and confidence among each other. As members are taking part in the practice drills on ice they make inquiries, and seek for feedback from each other and their coaches to see where they can improve or on determining where their skills can assist in supporting the game plan (Gilbert, 2008).

3 Research Methodology: Application of the Model – A Case Study on the Pit Crews

The design of this study is focused on the four research questions as followed:
“How does a team learn when the course is in the form of rehearsing? How does a team learn when the course is on having to do an experiment? How does a team learn when the course is in making an assessment? How does a team learn when the course is on reflecting?” From the Discovery Turbo channel, a documentary series called “Pit Crews” was selected as the field for this study. Twelve episodes were chosen to be studied to answer the research questions and to gather the data in the form of key contents for analysis. They were the following: NASCAR (National Association for Stock Car Auto Racing), AMA (American Motorcycle Association),

OSS (Offshore Super Series Powerboat Racing Association), Supercross, Champ Cars, IHRA (International Hot Rod Association), Canadian Superbike National, Indy Car Racing, Rolex Grand Am Series, NHRA Funny Cars, NASCAR Craftsman Truck Series, and Moto ST Endurance Series. Each of the series was approximately 45 minutes long. The rationale for choosing the documentary series of pit crews was that the working conditions of racing stressed the importance of not only working as a team, but to also be resilient in the midst of high pressure, unexpected errors, uncontrollable factors, and being mindful of safety when being engaged in an actual competition. Prior to setting up the racing vehicles for meeting the qualifications of the race and then actually competing in the event the racing team goes through two phases of practice session in order to make sure that they have of what they want, and being confident that it will help them win the race. When the stakes are high every time used is precious during the practice session to discover what can be right and not to second-guess the plan. Upon gathering the data, an analysis of Senge’s Model on the practical domain for developing team learning skills has been provided for each of the four disciplines. The conceptual framework is as followed:



This work was done in the approach of a case study method. The construction of “*Senge’s Model on the Practical Domain for Developing Team Learning Skills*” was examined through each episode of the film in order to draw out the evidence of how the pit crews demonstrated the idea of the practical field. The narrator’s illustration of the team and the participants’ behavior in action from the documentary series were examined to see how the pit crews demonstrated learning as a collective group in the form of rehearsing, experimenting, assessing, and reflecting. The car and motorcycle shall be referred to as a ‘racing vehicle’ in the analysis section of the study.

4 Analysis of Senge’s Model on the Practical Domain for Developing Team Learning Skills

Analysis was conducted from the data gathered in the documents that focused on answering the four research questions. The key contents were screened for and examined to see the parallel connections with the theory. The information from the documentary series was addressed to present the findings for each of the four practical domain.

4.1 Team Learning in the Form of Rehearsing

The outcome of the racing event depends on how much the team works together in a manner that is disciplined in being highly focused, minimizing the flaws, and anticipating for any disruptions and immediately fixing them. Rehearsing is utilized as a process for equipping the pit crew to take a proactive stance to ensure that the operator of the motor vehicle undergoes high performance and safety during the competition. During the practice sessions, team managers conduct a rehearsal with the crew members to let them obtain the know-how of setting-up the form of the racing vehicle, tuning its engine, discussing with the drivers on their needs for performance, and developing a good communicating relationship with each other. So for the human resource manager, the drills and practices done are meant to foster a sense of team chemistry so that everyone is aligned in mind, body, and soul to make a collective effort (Jackson and Delehanty, 2014) in winning the race. For current members and newcomers to the team, rehearsing is about doing things much more efficiently, solving problems quickly, and lessening the potential of risk and damages. In an event where the stakes are high, doing a team rehearsal sends the message out to associates about the desired behavior and attitude that are required to carry out, thus creating a shared value for group members when performing to the best of their capacity (Bartelme, 2005), whereas the human resource manager needs to follow up to develop an ongoing learning behavior amongst team. As the pit crew goes through the motion and emotions of rehearsing they are also taking part in a feedback methodology for management

to see the extent of the strategic plan's hypothetical objectives meeting with the expectations and demands of progress. Rehearsing, as a tool for team learning to be further supported by the human resource manager, is applied to ensure that everything that had been proposed before actually producing the intended results (Bone and Lintern, 1999), but if that is not the case then the team can always go back to make some necessary adjustments or changes so that the opportunity for winning a race is in their control. Overall, the idea is to expose any critical flaws that may show up during the competition. In this practical mode it allows the team to develop a checklist for making the proper maintenance and requirements that are crucial for the driver to gain a competitive edge. The uniqueness of doing a rehearsal for the pit crew is that it solidifies the psychological infrastructure to identify the mistakes and errors during the practice session so that the team can communicate on correcting the matter right away without ever have the feeling of doubt on whether or not some colleagues are keeping silent due to a fear of unwanted consequences, such as being belittled for speaking up or not wanting to be inconsiderate towards someone's ego (Shojaie, Matin, and Barani, 2011) which would disrupt the teamwork.

4.2 Team Learning in the Form of Experimenting

In the mindset of the pit crew there is always room for improvement so that the opportunity for winning the race can be greater than the current action plan. During the practice session qualifying 'mock-runs' are done to see how the racing vehicle and driver can be operated as a complete unit. In the form of a test for the human resource manager to get a better idea of, the mock-runs also provide a chance to determine whether the assertions of the set-up is leaning towards the standard time in actual competition and then make some efficient adjustments for better anticipated results in the next mock-run. Numbers and data are relayed as information for questioning the adjustments or for proposing ideas to get the racing vehicle to run with absolute speed and agility on the track, this can help the human resource manager to explain the situation with clarity and better understanding of the situation. By doing a test it contributes to crafting a better strategy and making better decisions for the team (Moosa and Lee, 2013) to be much more confident in. Asides from making a discovery for some new or better concepts for a competitive advantage and examining the configurations to ensure the comfort and safety for the driver's performance mock-runs set the condition for the team to perform as a cohesive group. It assists in developing the team to be a tight and coordinated group that is greatly focused on examining the task parameters of promoting efficiency and safety. This mode of testing not only builds the skills of the team members to evolve but it also enlarges their competency to deal with pressure

and scrutiny (Ogawa and Piller, 2006) as they are highly expected to get everything all done right with the least mistakes and errors as possible.

It's crucial for the human resource manager to understand that what the team learns from the test run eliminates the tendency to be absorbed in a conundrum which saves time for discussing and deciding to deal with the information at hand rather than speculating on what is not given (Tuulenmäki and Välikangas, 2011). Colleagues are able to be straightforward with the situation and avoid upholding any previous assumptions. Another form of experimentation is the 'test-fire' which is aimed at making sure that every part of the racing vehicle is working properly and that the details should not be overlooked. This test is conducted with the engine of the racing vehicle turned on in a stationary form. The format provides the opportunity for experts to share knowledge with their fellow team members to understand what is happening and then move into action to resolve any early disturbances or disruptions (Bos, Brown and Farrelly, 2013).

4.3 Team Learning in the Form of Making an Assessment

Apart from rehearsing and experimenting the team does an assessment to make sure that their racing vehicle pass an inspection test so that they qualify for the actual competition. Prior to making the qualifications the team has to put a lot of effort in making sure that all the details are covered otherwise it could reduce their chances of winning the race. The team takes a survey of the racing track and then determines how they should prepare their equipments for providing the proper maintenance to the tires. Since the tires are critical for enhancing speed the team has to set their skills in changing the tires in the fastest time as possible. An investigation is also done to see what has happened and then illustrating the information for crew members to learn on why it happened so that the motor vehicle can be arranged for another round of proper testing. Doing this type of an assessment helps the team to find the target points for victory while at the same time identifying their advantages and disadvantages and finding other alternatives for decision-making (Roth, Multer and Raslear, 2006), here is where the human resource manager can design the process for teams to learn in the workplace. An investigation platform can be arranged for team members to offer information from the assessment to support the effective ways for delivering maximum results. With a limited amount of time in the practice session and the focus being on the tires, the operator of the racing vehicle and the pit crew have to work in tandem in order to get the final resolution for the game plan. The driver does some lapse on the track to determine whether the tires are good enough or may need some proper adjustments for the right speed and balance in an actual race. He serves as the feedback for the pit crew to make some changes with the tires' volume, weight, and precision for the track. The team perceives the

issues with the same frame of mind so that solutions can be discussed or ideas can be proposed (Barton and Sutcliffe, 2010). By dealing with the facts that are being presented team members obtain a better understanding and knowledge of the structural environment which allow them to find other ways of contriving around the challenges (Sarcevic, 2009), thus providing a better rationale on part of the human resource manager for enhancing the support for the team to keep on learning. Assessment is also carried into the competition itself to assure the driver's chance for winning. Whether it's standing in the highest section of the bleachers with the crowd or on a raised platform, the spotter provides real time information into the driver's headphones to make a split-second decision and determine which position he should start to accelerate in order to outmaneuver the rival competitors. The spotter also looks out for any threat that may hinder the driving progress and warns the driver of any potential hazards up ahead, therefore allowing the driver on deciding the next course of action to take. In addition, the spotter lets the driver know what's going in the moment so that the driver can anticipate the movements of others to get ahead of the race. This format is about building trust in the strategic plan and confident that fellow colleagues are making a tremendous effort that the outcome is attainable (Covey, 2006). As a learning tool for the team and for human resource managers to utilize it with best intentions, assessment is a way for developing a wealth of information so that there's a foresight for anticipating with the unknown and uncertainties that can disrupt the applied concept (Miller, Riley and Davis, 2009).

4.4 Team Learning in the Form of Reflecting

Racing is a seasonal event. Everything done in the practice session translates into either a victory or a setback in the competition. But when it's the latter the experience tests the team's character and will to become resilient in getting another chance to compete for the championship. As the pit crews reflect on their previous shortcoming they get together for a de-briefing on ideas and solutions for powering up the racing vehicle to get more acceleration for quickness. They discuss about the concept of the set-ups and learn where adjustments can be made for greater performance. De-briefing allows the crew members to target the specific parts of the engine system with a great deal of knowledge and for proposing better ways in making the motor vehicle go faster. As a form of a lesson learned tool, de-briefing not only assures a better sense of confidence for the team to have more faith in their capabilities (Joseph and Heading, 2010) but sets the process of converting the information to become the sources of intelligence for coming up with an effective proposed strategy (Hakkyong, 2013), human resource manager has to examine the necessary factors to set the system to make the initiative occur on a continuous

basis. In the face of defeat the pit crews contemplate over the decisions made and the execution methods that failed to help them obtain success in the racing event. Crews go through a dialogue with fellow colleagues about the level of progress from the changes made, re-examining the techniques that had been deployed, and re-configuring the working dynamics for producing efficient results. While a defeat is a bitter pill to swallow it can also serve as a good lesson for realizing the limits and potential that each member of the group has when applying the chemistry for raising the team's performance and meeting the expectations. Although mistakes and errors may occur during an unexpected brief moment the team needs to inspect the level of consistency for making a quick recovery to stay ahead of the competition (Johnstone, Gilmore and Carson, 2008), as for the human resource manager's role he/she has to partake in the role of assisting team members to not be overwhelmed by what went wrong and stay focused throughout the course. At the end of the day the winners and losers go into the record books of the event. But for the pit crews they have to research their strategic philosophy, the dynamics of working and communicating together, and the concept of rehearsing, experimenting, and doing an assessment in the practice session so that it leads to a better chance for a victory in the future. Dealing with the facts at hand the pit crews encourage everyone to communicate and make a comparison of data for developing information that would help team members make better decisions. With the support from the human resource manager in contributing to the organization strategy for teams to perform at a high level, getting team members to mull over and reframe the organization's mission raises the morale, passion and spirit of individual members to challenge themselves in strengthening their capabilities as an effective faction (Evans, 2009).

5 Discussion and Conclusion on Human Resource Manager's Application of Senge's Practical Domain

From the impression on Senge's theory of the practical domain it may be perceived as finding a particular process for enhancing team learning. However, based on the application the study asserts that when teams are going through a specific practical activity they should also incorporate various learning techniques to help team members go beyond knowing with better insight and a great deal of understanding as a collective group (Webster et. al., 2008). This information entails that the human resource manager foster learning methods such as knowledge sharing, lessons learned, having dialogues, and other effective techniques to assist members of being equipped with many ways to help their fellow colleagues learn as a team. Rehearsing is an effective format for teams that want to analyze their level of chemistry in being determined and consistent in achieving high performance. The concept is on getting team members to discuss

about the proposed strategy, envisioning scenarios, and going into the details of crafting a method to achieve the mission objectives (O' Brien and Meadows, 2013). Rehearsing draws out the challenges that teams are able to see beforehand so that changes or adjustments in the skills and abilities can be made to accommodate the plan as well as determining the amount of resources to be used (Olivier and Verity, 2008). As a methodology, rehearsing calls for experimentation to reveal the facts, doing assessments to develop decision-making, and reflecting to get a better sense of direction to go to. The value should be on informing colleagues to know where they are applying their strengths and where they need to make up for their weaknesses (Edmondson and McLain, 2006).

Conducting experimentations are about anticipating for any discoveries of unclear issues or obstacles that may hinder the ability of reaching the goal; with the information obtained from the tests teams can go about revising or refining the ways of rehearsing (Miller, 2003). Examining the factors ahead of time is a good way for getting the problems or unwanted/unexpected issues exposed and solving them right away. Also, it breaks the habit of conducting the current routines for work and fosters the behavior to innovate on other forms of method for obtaining the objectives (Brix and Lauridsen, 2012). Results from the experimentation not only indicates assessing the concept but can also be used for helping and teaching fellow colleagues to obtain the comprehension on why things are happening in a particular situation and to set forth the necessary action for being a bit more innovative or creative to manage the outcome (Distanont, Haapasalo and Vaananen, 2014). After reflecting through a series of tests team members can raise question about the strategy and reframe the working system to support the idea or make some recommendations that would make the plan become more effective (Van Vactor, 2012).

Assessments are learning on what has been learned. Teams deal with what they are given and they try to convert the data into information by inquiring with fellow colleagues to see where the opportunities are for attaining the goal (Postma and Liebl, 2005). What has been learned becomes instant feedback for doing a rehearsal and revising the experimentation. With updated information from the assessment teams can develop intelligence by utilizing rehearsal as a way of seeing how each team member can perform at a certain pace and with precision in producing the required outcome under a limited amount of time. This practice allows the team as a whole to get a feel within the time frame and to moderate their behavior and attitude for effective performance. Overall, an assessment could also be done after the rehearsal to decide whether the ideal working system is actually promoting the growth of the teams' capabilities or stunting their potential for development (Seligman, 2005). For carrying out experiments an assessment provides a review of previous testing activities by reviewing the procedures that have been done.

More questions are added to the testing format so that issues can be further analyzed from researching the hypothesis or doing a trial run for mastering the ways getting close to the truth with the facts being presented at hand (Nicholls-Nixon, Cooper and Woo, 2000). With the issue of reflecting, doing an assessment can bring about a better view of the situation when the phases are studied together to let teams perceive the concerning issues to be addressed upon while also seeking for ways in supporting morale and teamwork so that everyone performs with consistency (Putkonen, 2009).

As for human resource managers that may want to promote the four discipline in Senge's practical domain, no matter what the line of work is there will always be success and failure. Ironically, in the midst of failure there are always lessons to be learned on becoming successful. Human resource managers will have to set the ideas within the foundation that it is always permissible to allow some room for setbacks as long as team members are held accountable for learning what has gone wrong and being responsible to themselves in helping other people learn to keep the process moving towards achieving the desired objectives and goal. Reflecting is a tool for teams to rewind back and see how all the activities have been done in practice and in the actual event led to the results. With the key issue of being much more equipped in the future teams have to redefine the method of raising standards and reconfigure the ways of working and communicating with each other (Craig, 2007) in order to gain a competitive edge in their vocational field. Reflecting is done to see how teams can raise their collective performance through the process of rehearsing, experimenting, and when making an assessment. While being aware of the emotions displayed under the conditions of a setback the psychological factors have to be addressed so that people don't become caught in a defensive behavior. From a reflective viewpoint, to maintain a good working relationship while members are confident to perform without any level of anxiety of being trapped in a 'goalodicy' when rehearsing this would require the fostering of trust where there's a sense of awareness for meeting the needs of other (Roberto, 2002). To uphold communication and rising to challenges teams should be exposed to experiments so that the facts and information are updated for making decisions in a timely manner (Wooten and James, 2004). Sustaining a behavior in teams that are mindful of the changes that may need to take place while letting people raise issues without having an awkward feeling of disrupting the harmony of teamwork (Noonan, 2009) should be the concept of doing an assessment. Overall, reflecting gives a chance to ponder on the things that have been done and to reframe the methods for better improvement. It's about developing an organizational culture that cultivates a sense of urgency rather than one that is always reacting with a scarce amount of time to take any action at all (Godkin and Alcom, 2008). To keep the idea of Senge's practical

domain applied on a continuous basis for team learning human resource managers must also put the model into practice themselves in order to make sure they understand how the four tools can be effective in achieving the desired results. While team members go through the process human resource managers should also reflect, experiment, assess, and rehearse with the team to identify how the organizational structure can make the necessary adjustments for the team to seek for support and improvement as they take part in upholding the organization's strategy and working within the system towards reaching the goal. This would truly help the intentions of human resource managers being recognized with credibility and trust as they are making an effort towards helping members to learn as a team.

In conclusion, upon conducting this work the study proclaims that the discipline of rehearsing, experimentation, assessment, and reflecting are intertwined to make the concept of team learning fruitful for groups trying to make their plans work or being challenged with the changes to their performance. So for the human resource managers, even if each domain was to act on its own or separated from the team learning model it would still call for other fields to carry out the disciplinary techniques to support its agenda. The practical concepts actually incorporate the ideas from other field to make the learning methodology for teams to be more sound and effective in helping them to achieve their outcomes or goal.

REFERENCES

- Antonacopoulou, E. (2006) "The Challenges and Prospects of Learning-in-Practise", OLKC 2006 Conference at the University of Warwick, Coventry on 20th - 22nd March.
- Bartelme, L. (2005) "The view from the Trenches: An Interview with Harvey Seifter and Tim Stockil", *Journal of Business Strategy*, Vol. 26, No. 5, pp. 7-13, © Emerald Group Publishing Limited, ISSN 0275-6668, DOI 10.1108/02756660510620716
- Barton, M. and Sutcliffe, K (2010) "Learning When to Stop Momentum", *MIT Sloan Management Review*, Vol. 51, No. 3, Spring
- Bone, R. and Lintern, G. (1999) "Rehearsal versus Map Study as Preparation for a Flight Navigation Exercise", *Human Factors and Ergonomics Society*, Vol. 41, No. 3, September, pp. 467-473.
- Bos, J., Brown, R. and Farrelly, M. (2013) "A Design Framework for Creating Social Learning Situations", *Global Environmental Change*, Elsevier Ltd., Vol. 23, Issue 2, April, pp. 398-412
- Brix, J. and Lauridsen, K. M. (2012) 'Learning Styles and Organisational Development in Practice: An Exploratory Study of How Learning Styles and Individual Learning Strategies can Facilitate Organisational Development', *Int. J. of Innovation and Learning*, 2012 Vol.12, No.2, pp.181 - 196

- Clements, J. (2010) "A Brief History of the Samurai: A New History of the Warrior Elite", Running Press Book Publishers, Philadelphia, PA, USA, ISBN-978-1-84529-947-7
- Covey, S. (2006) "The Speed of Trust, The One Thing That Changes Everything", Free Press, Simon & Schuster Inc., New York, NY, U.S.A., ISBN-13: 978-1-4165-3816-5
- Distanont, A., Haapasalo, H. and Vaananen, M. (2014) 'Organising Knowledge Transfer in Requirements Engineering Over Organisational Interfaces', *Int. J. Innovation and Learning*, Vol. 15, No. 1, pp.41–64.
- Dobny, B.C. (2011) 'The Relationship Between Innovation Orientation and Organisational Performance', *Int. J. Innovation and Learning*, Vol. 10, No. 3, pp.226–240.
- Donahue, A. and Tuohy, R. (2007) "Lessons We Don't Learn: A Study of the Lessons of Disasters, Why We Repeat Them, and How We Can Learn Them", *Homeland Security Affairs*, Vol. II, No. 2, July
- Evans, D. (2009) "Building Leadership Capital", Deakin Prime, Reflective Practice White Paper, Vol. 1
- Fahey, L. (2007) "Connecting Strategy and Competitive Intelligence: Refocusing Intelligence to Produce Critical Strategy Inputs", *Strategy & Leadership*, Vol. 35, No. 1, pp. 4-12, © Emerald Group Publishing Limited, ISSN 1087-8572 DOI 10.1108/10878570710717236
- Foverskov, M. and Binder, T. (2009) "Rehearsing the Future: In and Out of Scenarios in a Reflective Practicum", *Proceedings of the Nordic Design Research Conference*, Oslo School of Architecture & Design
- Gilbert, P. (2008) "Herb Brooks: The Inside Story of a Hockey Mastermind", MBI Publishing Company, Minneapolis, MN, USA, ISBN-978-0-7603-3241-2
- Godkin, L., & Allcorn, S. (2008). "Overcoming Organizational Inertia: A Tripartite Model for Achieving Strategic Organizational Change". *Journal of Applied Business and Economics*, Vol. 8, Issue 1, pp. 82–94.
- Hakkyong, K. (2013) "Improving Simulation Exercises in Korea for Disaster Preparedness", *Disaster Prevention and Management*, Vol. 22, No. 1, pp. 38-47, © Emerald Group Publishing Limited, 0965-3562, DOI 10.1108/09653561311301961
- Jackson, P. and Delehanty, H. (2014) "Eleven Rings: The Soul of Success", Penguin Books, New York, NY, USA, ISBN-978-0143125341
- Jain, N. (2011) "Entry Deterrence and Experimentation Under Demand Uncertainty", *International Journal of Industrial Organization*, Elsevier Ltd., Vol. 29, Issue 4, July, pp. 464–472
- Johnstone, M., Gilmore, A. and Carson, D. (2008) "Dealing with Environmental Uncertainty: The Value of Scenario Planning for Small to Medium Sized-Enterprises (SMEs)",

- Kess, P., Tong-In, D., Ayutthaya, P.S-n. and Anusornnitisarn, P. (2014) 'Process Innovation in Pre-stressed Concrete Wire Using Mechanical-based Process Simulator', *Int. J. Innovation and Learning*, Vol. 15, No. 1, pp.95–113.
- Kontogiannis, T. and Malakis, S. (2009) "A Proactive Approach to Human Error Detection and Identification in Aviation and Air Traffic Control", *Safety Science*, Elsevier Ltd., Vol. 47, Issue 5, pp. 693-706
- Lloyd, A. (2009) "Informing Practice: Information Experiences of Ambulance Officers in Training and On-road Practice", *Journal of Documentation*, Vol. 65, No. 3, pp. 396-419, © Emerald Group Publishing Limited, 0022-0418, DOI 10.1108/00220410910952401
- McCann, J., Selsky, J. and Lee, J. (2009) "Building Agility, Resilience and Performance in Turbulent Environments", *People & Strategy*, Vol. 32, Issue 3, pp. 44-51
- Miller, K., Riley, W. and Davis, S. (2009) "Identifying Key Nursing and Team Behaviours to Achieve High Reliability", *Journal of Nursing Management*, Vol. 17, pp. 247-255
- Miller, P. (2003) "Workplace Learning by Action Learning: A Practical Example", *Journal of Workplace Learning* Volume 15 – Number 1- pp.14-23 ISSN 1366-5266
- Moosa, N. and Lee, J. (2013) "Smart Experimentation: Moving in-market with Maximum Velocity and Minimum Risk", *Business Strategy Series*, Vol. 13, No. 3, pp. 118-123, © Emerald Group Publishing Limited, ISSN 1751-5637 DOI 10.1108/17515631211225251
- Nicholls-Nixon, C., Cooper, A. and Woo, C. (2000) "Strategic Experimentation: Understanding Change and Performance in New Ventures" *Journal of Business Venturing*, Elsevier Ltd., Volume 15, Issues 5–6, September–November, pp. 493-521
- Noonan, W. (2009) "Discussing the Undiscussable", 61st Annual Conference & Exposition, Society for Human Resources Management, New Orleans, Louisiana, June 28 – July 1.
- O'Brien, F. and Meadows, M. (2013) "Scenario Orientation and Use to Support Strategy Development", *Technological Forecasting & Social Change*, Elsevier Ltd., Vol. 80, Issue 4, May, pp. 643–656
- Ogawa, S. & Piller F.T. (2006), "Reducing the risks of new product development," *MIT Sloan Management Review*, Winter, pp 65-71.
- Olivier, R. and Verity, J. (2008) "Rehearsing Tomorrow's Leaders: The Potential of Mythodrama", *Business Strategy Series*, Vol. 9, No. 3, pp. 138-143, © Emerald Group Publishing Limited, ISSN 1751-5637, DOI 10.1108/17515630810873375
- Orcas Attack Seal with Waves – accessed 5 Oct 2011:
<http://www.youtube.com/watch?v=oxDZW4k8tCY>, "Untamed and Uncut: Orcas Attack Seal"

- Persons, J., Beckner, V. and Tompkins, M. (2013) "Testing Case Formulation Hypotheses in Psychotherapy: Two Case Examples, Cognitive and Behavioral Practice, Elsevier Ltd., Vol. 20, Issue 4, November, pp. 399–409
- Petraeus, D. (2006) "Learning Counterinsurgency: Observations from Soldiering in Iraq", *Military Review*, Jan-Feb, pp. 45-55
- Postma, T. and Liebl, F. (2005) "How to Improve Scenario Analysis as a Strategic Management Tool?", *Technological Forecasting & Social Change*, Elsevier Ltd., Vol. 72, Issue 2, February, pp. 161–173
- Putkonen, A. (2009) "Teams Are Not Innovative When Under Constant Time Pressure", *Int. J. Innovation and Learning*, Volume 6, Number 5, pp. 477-492(16)
- Ramanujam, R. and Goodman, P. S., (2011) "The Challenge of Collective Learning from Event Analysis", *Safety Science*, Elsevier Ltd., Vol. 49, Issue 1, January, pp. 83-89
- Roberto, MA. (2002) "Lessons from Everest: the Interaction of Cognitive Bias, Psychological Safety and System Complexity. *California Management Review*, Fall, Vol.45, Issue 1, pp. 136-160.
- Roth, E., Multer, J. and Raslear, T. (2006) "Shared Situation Awareness as a Contributor to High Reliability Performance in Railroad Operations", *Organization Studies*, Vol. 27, Issue 7, pp. 967-987
- Sarcevic, A. (2009) "Understanding Teamwork in High-Risk Domains Through Analysis of Errors", CHI 2009 ~ Spotlight on Works in Progress ~ Session 2, April 4-9
- Seligman, J. (2005) "Building a Systems Thinking Culture at Ford Motor Company", *Reflections, The Society for Organizational Learning Journal*, Vol. 6, No. 4/5, pp. 5-13, ISSN 1524-1734
- Senge, P. (2006) "The Fifth Discipline: the Art & Practice of the Learning Organization", Currency Doubleday, New York, NY, USA, ISBN- 978-0385517256
- Sharp, K., Stanley, P. and Simmons, G. (2013) "Nothin to Lose: The Making of KISS 1972 – 1975", HarperCollins Publisher, New York, NY, USA, ISBN-978-0-06-213173-7
- Shojaie, S. Matin, H. Z. and Barani, G. (2011) "Analyzing the Infrastructures of Organizational Silence and Ways to Get Rid of it", *Social and Behavioral Sciences*, Elsevier Ltd., Vol. 30, pp. 1731-1735
- Tjosvold, D., Yu, Z. and Hui, C. (2004) "Team Learning from Mistakes: The Contribution of Cooperative Goals and Problem-Solving", *Journal of Management Studies*, Vol. 41, Issue 7 November, 0022-2380
- Tuulenmäki, A. and Välikangas, L. (2011) "The Art of Rapid, Hands-on Execution Innovation", *Strategy & Leadership*, Vol. 39, No. 2, pp. 28-35, © Emerald Group Publishing Limited, ISSN 1087-8572 DOI 10.1108/10878571111114446

- Ullman, D. and Ast, R. (2011) "Analysis of Alternatives (AoA) Based on Decisions", *MORS, Phalanx*, Vol. 44, No. 3, September, pp. 24-36
- Välíkangas, L. and Romme, A.G. (2012) "Building Resilience Capabilities at Big Brown Box, Inc.", *Strategy & Leadership*, Vol. 40, No. 4,
- Van Vactor, J. (2012) "Strategic Health Care Logistics Planning in Emergency Management", *Disaster Prevention and Management*, Vol. 21, No. 3, pp. 299-309, © Emerald Group Publishing Limited 0965-3562, DOI 10.1108/09653561211234480
- Webster, J., King, H., Toomey, L., Salisbury, M., Powell, S., Craft, B., Baker, D. and Salas, E. (2008) "Understanding Quality and Safety Problems in the Ambulatory Environment: Seeking Improvement with Promising Teamwork Tools and Strategies", In *Advances in Patient Safety: New Directions and Alternative Approaches (Vol. 3: Performance and Tools)*. Edited by Henriksen K, Battles JB, Keyes MA, Grady ML. Rockville (MD): Agency for Healthcare Research and Quality (US); 2008:1–15.
- Weick, K. and Sutcliffe, K. (2008) "Organizing for Higher Reliability: Lessons Learned from Wildland Firefighters", *Fire Management Today*, Vol. 68, No.2, Spring
- Wooten, L. and James, E. (2004) "When Firms Fail to Learn: The Perpetuation of Discrimination in the Workplace", *Journal of Management Inquiry*, Vol. 13, Issue 23
- Yeganah, B. and Kolb, D. (2009) "Mindfulness & Experiential Learning", *OD Practitioner*, Vol. 41, No. 3