Kaizen within Kaizen Teams : Continuous and Process Improvements in a Spanish municipality

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Abstract

A Purpose. As organizations become more team oriented, research on teams continues to increase especially involving how teams contribute to organizational performance and effectiveness. Although there has been existing research on Kaizen teams in the private sector, very little research has included Kaizen teams in the public sector. In this paper, we present a method to study Kaizen teams in a local Spanish government that have been using Kaizen teams for more than ten years.

Design/methodology/approach. Quantitative research was adopted for this study. Twenty teams participated in the study by filling out the Team Learning and Development Inventory (TLI) proposed by Lingham (2004). In addition, we interviewed members of the teams in order to clarify and assure our quantitative results.

Findings Based on the findings, we propose that Kaizen teams should practice both Continuous (CI) and Process Improvements (PI) in their projects. We also propose that Kaizen teams should not be teams skilled only at developing better improvement processes (both CI and PI) for the organization but that such teams should also be skilled at engaging in team development using both CI and PI processes internally-a Kaizen within Kaizen teams approach.

Research limitations. Its based in one case study. However, it is working paper and the research project still is developing.

Practical Implications (if possible). Serve as a guide to practitioners (Public managers) who desire to understand how their Kaizen teams involves both internal (conversational spaces) and external (methodology) perspectives that would contribute to both team and organizational effectiveness. In this paper, we focus on the Internal Processes (both CI and PI) using the TLI as an effective method for Kaizen teams to engage in the Kaizen process.

Originality/value. This study is one of the first to look at team's performance using Team Learning and Development Inventory in Spain's public sector. It is also the first to mention about the relationship of the team's performance and the implementation of process improvement methodologies in Spain local government environment.

Key Words: Kaizen, Continuous improvement, Process Improvement, Kaizen Teams, Public Sector, Spain

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1. Introduction

Organizations of today are facing an increasingly turbulent environment. Learning from concepts founded on Scientific Management such as TQM and Quality Control Circles, the Japanese philosophy of Kaizen has permeated numerous organizations across the world. Teams have been used across all levels of organizations to promote ideas and projects to aid in creating a flexible learning organization adept to survive in such chaotic and unpredictable environments. Although a plethora of successful projects and improvements have been reported and employed in organizations, most teams are usually temporary and disband after a project has been seen from conceptualization to implementation. However, in some organizations, not all teams are disbanded; they may go on to look at another project or projects that can help their organizations. Despite this burgeoning of teams to help with organizational learning and development, the teams themselves are not provided with understanding the complexity of the team experience in terms of internal processes and outcomes-a Kaizen system for Kaizen Teams. Why is this important? Teams in organizations need to have a method to understand the complex nature of its experience, measure and map out significant aspects and to be able to create concrete action steps for their own development as a team. We introduce a model and method called the Team Directed Learning and Development Inventory or TLI (Lingham, 2004)[1] as an immediate and effective way to achieve this goal. Such as methodology would certainly be useful for teams as it would help them to engage in a team-directed learning process as a fundamental nature of their development. Even as Jack Welch mentioned, one of the special qualities he looked for in managers and leaders while he was at General Electric (GE) was the capacity to continuously learn. At the team level, such a method could increase a team's capacity to learn and adapt continuously.

2. The Kaizen Philosophy

Improvement has become an integral part of theories and models of change such as structuration theory (Pettigrew, 1990), ideal types of change (Van de Ven and Poole, 1995), and cycles of organizational changes within revolutionary, piecemeal, focused, isolated and incremental changes (Mintzberg and Westley, 1992). Imai (1986) introduced Kaizen into the western world when he and outlined its core values and principles in relation to other concepts and the practices involving the improvement process in organizations (Berger, 1997). Framed as *Continuous Improvement* (Lillrank and Kano, 1989; Robinson, 1991), the Kaizen philosophy gained recognition and importance when it was treated as an overarching concept

1) The TLI used in this study is the TLI version 2.

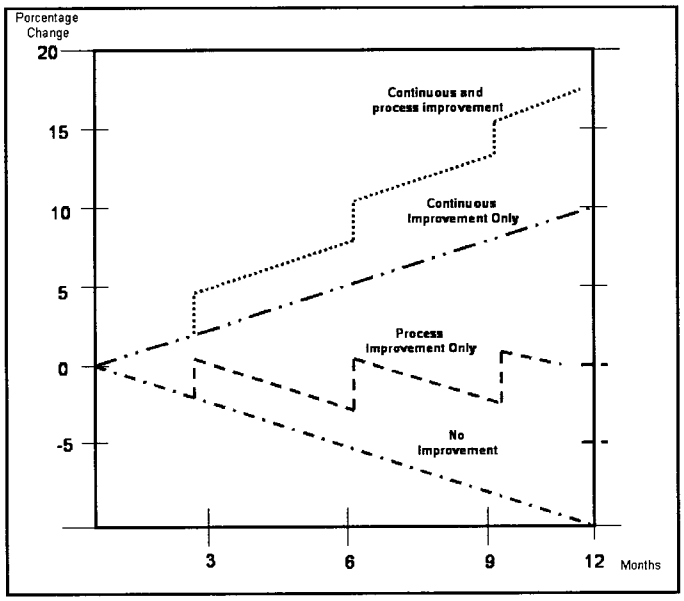
for Total Quality Management (TQM) (Imai, 1986; Tanner and Roncarti, 1994; Elbo, 2000), Total Quality Control (TQC) or Company Wide Quality Control (CWQC) (Mizuno, 1988) citing practices such as Toyota Production Systems (TPS) and Just in time (JIT) response systems (Monden, 1998; Dahlgaard and Dahlgaard-Park, 2006) that is aimed at satisfying customer expectations regarding quality, cost, delivery and service (Carpinetti *et al.*, 2003; Juran 1990). With this focus on improvement, the Kaizen philosophy reached notoriety in organizational development and change processes and has been explained as the "missing link" in western business models (Sheridan, 1997) and one of the reasons why western firms have not fully benefited from Japanese management concepts (Ghondalekar *et al.* 1995).

Kaizen is a compound word involving two concepts: change (*Kai*) and to become good (*zen*) (Newitt, 1996; Farley, 1999). To engage in Kaizen therefore is to go beyond one's contracted role(s) to continually identify and develop new or improved processes to achieve outcomes that contribute to organizational goals (Brunet and New 2003). Kaizen can be understood as having a spirit of improvement founded on a spirit of cooperation of the people (Asociación de Relaciones Humanas del Japón, 1992; Malloch, 1997), suggesting the importance of teams as a fundamental design in this approach (Tanner and Roncarti, 1994; Imai, 1997; Tozawa and Bodek, 1999; Bessant, 2003; Suárez-Barraza, 2007). Based on the past literature, we summarize the Kaizen methodology as: 1) one that involves all the employees of the firm; 2) improving the methods or processes of work; 3) improvement are small and incremental in nature and 4) using teams as the vehicle for achieving theses incremental changes.

Kaizen philosophy, however, includes the concept of Kaizen (Continuous Improvement) and Kairyo (Process Improvement). Imai (1986) proposes that the Kaizen philosophy embraces four main principles: *Principle 1). -Kaizen is process-oriented.* Processes need to be improved before results can be improved. (Imai, 1986, pp. 16-17). *Principle 2). -Improving and maintaining standards.* Combining innovations with the ongoing effort to maintain and improve standard performance levels is the only way to achieve permanent improvements (Imai, 1986, pp. 6-7). Kaizen focuses on small improvements of work standards coming from ongoing efforts. There can be no improvement if there are no standards (Imai, 1986, p. 74). The PDCA cycle (Plan-Do-Check-Act) is used to support the desired behaviours. This cycle of continuous improvement has become a common method in Kaizen, it is used to generate improvement's habits in employeess (Suárez-Barraza and Ramis-Pujol, 2005). *Principle 3).- People Orientation.* Kaizen should involve everyone in the organization, from top management to workers. One of the strongest mechanisms aligning with this third principle is Group-oriented Kaizen (Imai, 1986; Suárez-Barraza, 2007). Kaizen teams focus primarily on improving work methods, routines and procedures usually identified by management (Imai, 1986; Berger, 1997).

Although Kaizen is usually associated with Continuous Improvement (CI), some re-

searchers also consider that Continuous Process Improvement *(CPI)* is a natural evolution of TQM and CI perspective (MacDonald, 1995; Chung, 1999). The literature, however, distinguishes Kaizen efforts as focused on small (or gradual) improvements-continuous improvements-and CPI as radical rethinking of important and crucial processes to achieve dramatic improvements (Davenport and Short, 1990; Short and Venkatran, 1992). In fact, according to the literature both concepts are complementary: CPI is not meant to replace Kaizen as both approaches are essential to the improvement efforts and they share the same philosophy of focusing on processes (Imai, 1986; Kelada, 1994; Harrington, 1995; Bond, 1999; Walsh, 1996; Daniels and Burns, 1997). Figure 1 represents the distinction between CI and CPI. For example, an organization seeking to improve its performance tends to begin with small and incremental improvement (first order change). Without going through small incremental change (i.e., keeping the status quo), the organization would experience a slow gradual decline negatively affecting work standards, performance and worker motivation (Imai, 1986). CPI, however, creates a second order change within the organization creating a positive spike (more radical improvement) (Harrington, 1991; Davenport, 1993). However, using only CPI is not effective either as it is juxtaposed with the constant gradual decline in performance creating little or no overall increase in performance. According to Harrington (1995, p. 41) the "best" organizations have been applying both continuous and process (breakthrough) improvements (See Figure 1).



Source: Adapted from James H. Hamington. Continuous versus breakthrough finding the righ: answer. Business Process Reengineering and Management Journal 1995. Page 41.

Figure 1. Comparative of performance change with continuous improvement and process improvement.

Today, one of biggest challenges managers face is to provide an environment (or context) where both process improvement and continuous improvement can exist. In order to generate CI and CPI in organizations, teams are generally created for this purpose. Yet, the teams themselves may not have the skills or knowledge to create an environment where they can also develop based on their needs as a Just-in-time process. Should organizations be able to provide teams with the knowledge and skill to engage in team directed learning and development, such teams can generate even better performance for the organization. In the next section, we present a methodology that provides teams with the ability to engage in team directed learning based on their needs-which may differ based on each project that the teams work on. In essence, it is Kaizen within Kaizen teams.

3. Team Research, Conversational Spaces and the Team Learning and Development Inventory (TLI)

The growing number of corporations moving toward employing teams across all levels is creating a critical need for managers to increase their knowledge about teams. Further, in addition to learning how to be a team member, managers now need to develop the skills required to lead, create and support teams. Therefore, as organizations evolve to become more team oriented, research on teams continues to become more important. In a recent review on team research, Cohen and Bailey (1997) mentions that team effectiveness encompasses three areas: performance, effectiveness, and member attitudes.[2] Such empirical studies, however, have been bifurcated. On the one hand, researchers argue that team life is complex and can best be understood by zooming in on specific aspects. This approach resulted in generating vast amounts of knowledge on teams such as decision making (Wageman, 1995; Brown *et al.*, 1998), psychosocial traits (Gully *et al.*, 1995; Wech *et al.*, 1998; Langfred, 1998), T-groups (Lewin, 1951), team learning (Brooks, 1994; Edmondson, 1996, 1999; Kasl *et al.*, 1997), the effect of time on teams (Gersick, 1989), group dynamics (Zander, 1982); leadership in teams (Hackman, 1990, 2002), team development (Tuckman, 1965), group emotional intelligence (Druskat and Wolf, 2001) and group design (Steiner, 1972; Hackman, 1987; Campion *et al.*, 1993). On the other hand, researchers have also presented the importance of understanding teams as a whole. Such integrative perspectives, though less popular since the 1950s, have been steadily growing in recent years. Some examples are McGrath's Time, Interaction and Performance (TIP) model (1991); Bales' Interaction Process Analysis (IPA) (1949) and his System for the Multiple Level Observation of Groups (SYMLOG) (1979);

2) In developing the Team Learning and Development Inventory, we used all three aspects as our dependent variables.

change processes in groups (Gemmill and Wynkoop, 1991) and group communication (Salazar, 1995). Other integrative models have included cognitive, affective, and behavioral aspects (Wheelan, 1994; Thompson and Fine, 1999) but not the temporal facet as proposed by McGrath (1991).

Despite this bifurcation in team research, the team experience is a highly complex one involving involves learning, social political, relational and task aspects. A unique theoretical model that provides the beginnings of such an integrative method is Conversational Learning (Baker *et al.*, 2002) that has its roots in Experiential Learning Theory (Kolb, 1984).

In the theory of Conversational Learning (Baker *et al.*, 2002) conversational spaces of teams are bounded by ten dimensions in five dialectical poles. These ten dimensions are: Apprehension (involvement and open-mindedness) ←→ Comprehension (analysis and understanding); Intension (listening to ideas and perspectives) ←→ Extension (trying things out); Individuality (accepting members as unique individuals) ←→Relationality (connecting, relating and caring for each other); Status (leadership) ←→ Solidarity (collective mindedness, members as peers); and Discursive (focus on tasks or agendas) ←→ Recursive (safety and freedom of expression).

Based on empirical quantitative research, the 10 dimensions were re-theorized into a four factor model with its aspects relabeled for ease of understanding and applicability (Lingham, 2004). Figure 2 shows the mapping of these ten dimensions along the four major spaces as proposed by Lingham (2004): Divergent, Convergent, Leadership and Safety. A brief description of each of the four aspects is shown in Table 1.

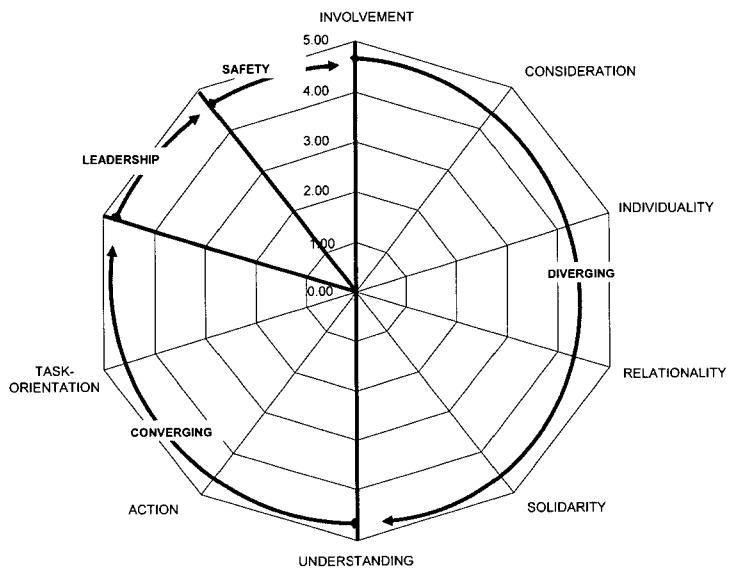


Figure 2. Conversational Space Mapping of the Ten Dimensions along the Four Major Spaces

Table 1. The Four major Dimensions of Conversational Spaces

Factors	Definition
Diverging	Diverging is defined as the extent to which a team is engaged in valuing one another, connecting with one another and where team members have the freedom to be individuals and relate to each other. This space is not task or purpose focused.
Converging	Converging is defined as the extent to which the team engages in decisions and is driven by agendas or directions that are related to the task or its purpose.
Leadership	Leadership is defined as the extent to which there is dependence on a single strong leader in the team.
Safety	Safety is defined as the extent to which members focus on issues or ideas that are of interest or concern to individual members or the group as a whole.

The TLI offers a method that: 1. provides managers and teams with an understanding of the actual experiences of team members and the ideal experiences they would like to have in order to function more efficiently and effectively; and 2. opens up a unique opportunity to allow teams to engage in the process of team-directed learning and development where concrete action steps can be taken to move teams towards their ideal-not only in outcomes but in their team process as well. With conversations becoming recognized as a core business process (Brown and Issacs, 1996), understanding a team's Real and Ideal Conversational Spaces is an important and critical aspect of team experiences. As mentioned, the TLI captures these conversational spaces-one based on human interaction and communication.

When part of a team's identity is that of having discussions, conversations, brainstorming along with fulfilling assigned tasks-such as those found in educational institutions and organizations-the TLI can be a very effective tool to help such teams realize their Real and Ideal Spaces (i.e., that involving human interaction, communication and task aspects) in measurable terms in a way that creates opportunities for the team to develop specific action steps towards becoming a more effective team.

This methodology permits teams to develop toward their ideal regardless of their maturity as it presents a snap-shot of what is important for their team at the time the TLI was administered (i.e., Just-in-time feedback) and can be used continuously throughout the life span of the team. The TLI has been used for T-groups (Lingham *et al.*, 2005a); organizational change (Lingham and Richley, 2005); and educational teams (Lingham *et al.*, 2005b). As this method provides the ability for a team to engage in a team-directed learning and development process, it can be considered a "Kaizen" approach for team development focusing on process and outcomes. The TLI is therefore a powerful (due to its immediacy of impact) method to help teams see where they are and where they would like to be that is unique to each team.

4. Methodology

As this study focuses on Kaizen teams, we approached an organization in Spain that includes Kaizen teams as part of its organizational design. Our choice to study Kaizen teams in this organization was based on the fact that firstly, this local government organization in Northeast Spain has been using Kaizen teams for the past ten years; secondly, the improvement system employed in the organization was certified by external experts and awarded the Iberoamerican Quality Award in the year 2000; and thirdly, the organization was the first in Spain to receive the highest rating of self-evaluation in the European Foundation of Quality Management (EFQM).

Table 2. Details of Kaizen Teams that Participated in the Study

Kaizen Team Number[a]	Total Members in the Team	No. of Men	No. of Women	Total Members that Responded	Response Rate(%)[b]	Duration (No. of years)	Status of Project
1	5	2	3	4	80.00	3	Finished
2	4	0	4	4	100.00	3	Finished
3	3	1	2	2	66.67	1	Not finished
4	3	0	3	2	66.67	3	Finished with Excellent Results
5	3	0	3	2	66.67	2	Finished
6	4	0	4	4	100.00	3	Finished
7	6	2	4	2	33.33	3	Finished
8	3	3	0	2	66.67	2	Not finished
9	4	0	4	2	50.00	3	Finished
10	4	0	4	2	50.00	3	Finished
11	3	3	0	3	100.00	2	Not finished
12	4	1	3	2	50.00	3	Finished
13	5	4	1	3	60.00	3	Finished
14	3	1	2	2	66.67	3	Finished
15	3	2	1	2	66.67	2	Not finished
16	3	0	3	2	66.67	2	Not finished
17	3	2	1	2	66.67	3	Finished
18	3	0	3	2	66.67	1	Not finished
19	4	1	3	3	75.00	3	Finished
20	5	1	4	4	80.00	3	Finished with Excellent Results
Total	**75**	**23**	**52**	**51**	**68.00**	**2.55**	
						Average (Years)	

Note: [a] Each Kaizen team has a name as part of their team's identity. In this paper, we masked the names and provided numbers instead to maintain confidentiality.

[b] Some of the people did not answer, because they already left the organization or they were transferred.

4.1 Participants

A total of 20 Kaizen teams (a total of 75 members) that have been together for an average of 2.55 years (minimum of 1year to a maximum of 3 years) participated in this study. Although some teams comprise entirely men or women, others have a mixture of gender having from one to four men or women in the team. The gender constitution is also reflected in Table 2. Of the 20 teams, 14 had already completed a project (two identified as having done excellent projects) and the remaining six still working on projects. A total of 51 members filled out the TDI (a 68% response rate) with a range of two to four members responding per team. The percentage of response per team ranged from 50% to 100%. Table 2 below shows details of the teams and members that participated in this study.

4.2 Procedure

We administered the TDI to each of the teams as part of their team development program. After compiling the results, we sent out the results for all the teams and met with them to discuss the results. As part of the research design, one of the authors met with four teams (with at least two members including the team leader) that were selected to represent the different functions, project status and performance. Members in these four teams were interviewed about how the results from the TLI have helped them as Kaizen teams and what action steps they have included in their team development plan.

4.3 Description of the organization

The organization has about 300 employees with an annual budget of 38 million Euros. This government organization is responsible for an area of 4.60 Km^2 and provides public service to 46,630 people. The public service that they provide is shown in Figure 3. The organization has two main functions: political and technical/management.

In late 1989, the organization began a ten year strategic plan in order to create a culture that focuses on change and improvement. Since the implementation of the Continuous and Process Improvement efforts, in 1996 the organization created a management model adopted from the EFQM Business Excellence Model which is based on the philosophy of the European quality model. The model is reflected in the organization's "Mission, Vision, and Shared Values" and Quality Plan defined by the Quality Management Committee (QMC)[3] and approved by the Governing Committee. The Quality Plan outlined focused on three major areas: *Commitment with citizens, Process management and Active Participation of Employees*. These three areas have two main systems in operation that focus on Process

3) The Quality Management Committee is formed by all the directors of the departments, the quality and process teams and the political members (i.e., the mayor and his staff).

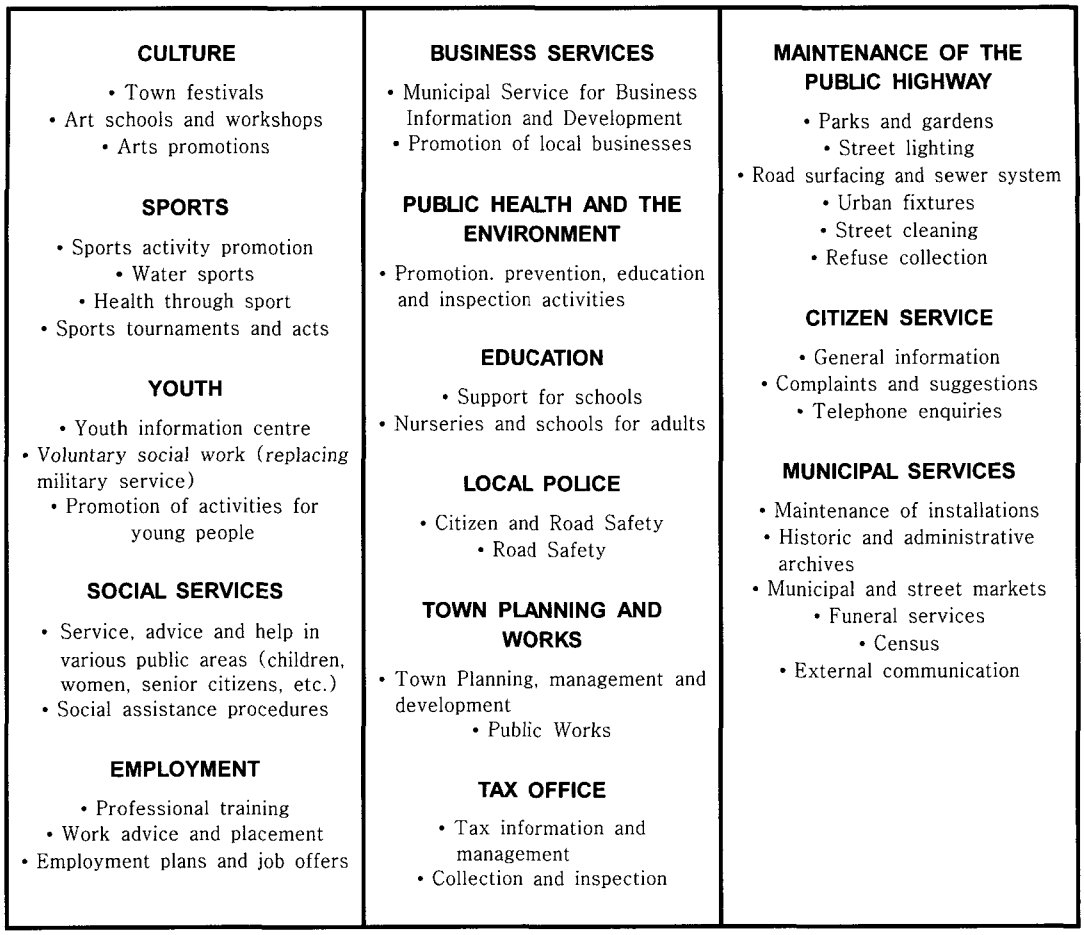


Figure 3. Catalog of Services Provided by the Organization

Improvement (PI) and Continuous Improvement (CI): *1. The Participation System; and 2. The Improvement System*. Both systems employ Kaizen teams and Change Groups. These two types of teams are developed for engaging in specific processes. Change groups were formed to implement specific improvement projects of the organization based on the objectives defined by citizens' needs (a top-down system-*Commitment with citizen's area*). Kaizen teams, on the other hand, have the responsibility to work with methods and techniques within the organization (a bottom-up system, *another two areas of Quality Plan*). In this paper, we are focuses on Kaizen teams that comprise three to six members. In fact, the Kaizen's teams are defined by this organization as: "*Group of persons who are formed by different departments and hierarchical level (three or six members). The team functions over a short period in order to find and improve any inter-departmental chronicle problems, which affect at least one of the employees of the team. In addition they follow an improvement methodology and techniques*".

Forming part of the Municipal Town Council culture is the belief that continuous improvement requires the initiative, participation and willingness to learn from all stakeholders. Management, through their leadership and appropriate people management policies, created a working atmosphere in which employees are in a position to contribute their potential towards this common goal. Therefore, appropriate training is given to all employees prior to their participation in Kaizen teams, thus ensuring that they have the necessary competence to apply the newly learned work methods and techniques. Both systems therefore use inter-departmental problem solving and/or opportunity identification primarily through Kaizen teams. Problems within departments are identified in workshops sessions initiated by any employee or group of employees. The problem or opportunity is presented to higher management through filling out a specially designed form for this purpose. All projects are then reviewed and prioritized and handed over to appropriate Kaizen teams. The Kaizen team itself is responsible for drawing up the project and implementing it after approval from the QMC.

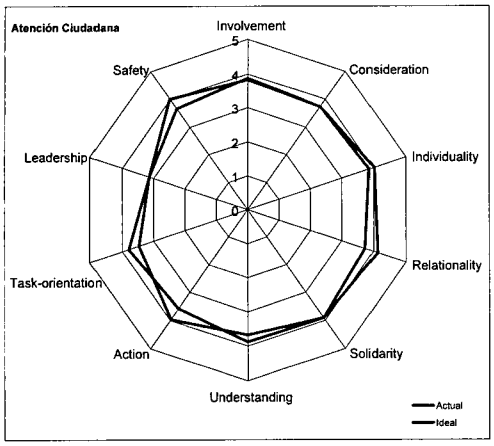
5. Results

All twenty Kaizen teams filled out the TLI and Figure 4 shows the mappings of the four teams that were scheduled to meet with one of the authors. The four teams were selected to include two teams that have finished their projects (Teams 1 and 6), one (Team 20) finished with excellent results (rated by management) and one (Team 11) that was till working on their project. As can be seen although the four teams are Kaizen teams, each of their Real and Ideal Conversational Spaces are unique. Immediately noticeable is the fact that Team 20's mapping is the largest and also the one with minimal gaps between the Real and Ideal.

Comparing Teams 1 and 6 (both teams that finished their projects), Team 6 had seven dimensions (all the aspects from the Divergent Space and two from the Convergent Space) that had lower scores for the Real Space when compared to that of the Ideal Space. Team 1 had only one score (Action) that had higher ratings for the Ideal than the Real. They had, however, five aspects that had higher Real ratings (Individuality, Relationality, Understanding, Task-Orientation, and Safety). Without the mappings, it may be difficult for the Team 6 to understand why they might not be doing as well as they would like or how they could learn to improve their team. Although the results for Team 6 and Team 11 may seem similar at a glance, Team 11 had a higher score for their Leadership dimension in their Real Space and wanted less dependence on a strong leader in their Ideal Space. Based on the initial studies on conversational spaces (Lingham, 2004), dependence on a strong leader had significant and negative effects on Performance, Member Satisfaction and Psychological Safety. The result from Team 11 confirms this even in Kaizen teams.

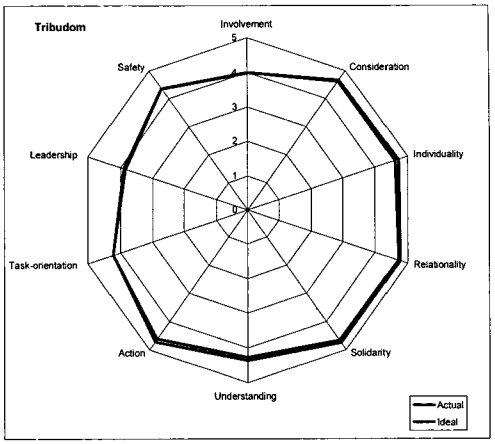
During the meetings with the four teams, members in Team 1 mentioned that the TLI

TEAM 1 (ATENCION-CIUDADANA)



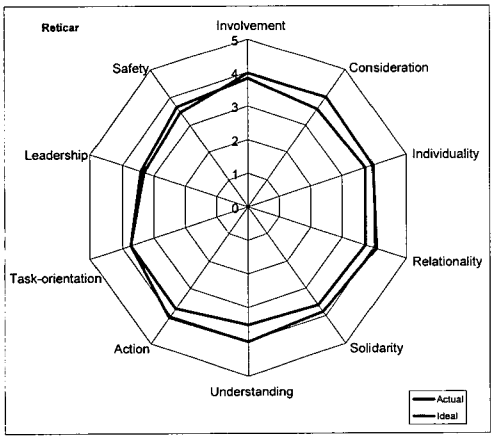
Outcome Measures:	
Performance	: 5.5/7.00
Member Satisfaction	: 4.25/5.00
Psychological Safety	: 5.39/7.00

TEAM 20 (TRIBUDOM)



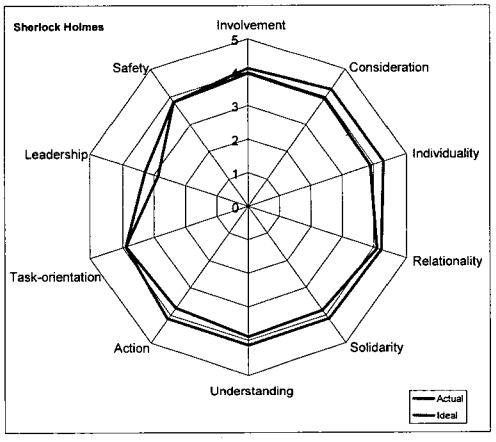
Outcome Measures:	
Performance	: 6.35/7.00
Member Satisfaction	: 4.63/5.00
Psychological Safety	: 5.11/7.00

TEAM 6 (RETICAR)



Outcome Measures:	
Performance	: 5.10/7.00
Member Satisfaction	: 3.69/5.00
Psychological Safety	: 4.68/7.00

TEAM 11 (SHERLOCK HOLMES)



Outcome Measures:	
Performance	: 4.67/7.00
Member Satisfaction	: 3.83/5.00
Psychological Safety	: 5.14/7.00

Figure 4. Conversational Space Mapping of Kaizen Teams and their Corresponding Ratings

captured their experience well and that they would like to be more action focused. They also realized that they were focused on creating a plan rather than going into action (as in-

dicated by a need for less Task orientation and more Action in their Ideal Space). They also mentioned that they were very comfortable with the leadership aspect with one member saying that he actually felt much better in this team (comparing his past experience with another team) as he felt the freedom and ability to express his ideas and that nobody really took strong leadership in the team. Members in Team 20 mentioned that they were not surprised by their mappings as they felt that they were a good team and the results helped confirm their team experience. However slight, they also realized that one reason why they did not have higher ratings on Psychological Safety was they would have liked to be free to express themselves as individuals and that they could incorporate that into their meetings and have more openness in their interaction (as depicted by their Safety Space mapping).

Members of Team 6 mentioned that they too agreed with the mappings and decided to focus on having a clearer understanding of the task (Understanding aspect of the Convergent Space) and also on having better listening skills (Consideration aspect of the Diverging Space). They stated that seeing their mapping helped them understand how to become a better team -especially since they were a Kaizen team focusing on improvements in the organization. For them, it was exciting to be able to improve their team as well.

From the conversations we had with the Kaizen teams, we also discovered that team members indicate that they practice both CI and PI processes when working on their projects. One team stated that they did not know whether they were using CI or PI in their projects but were concerned about achieving good results even if it meant suggesting process improvements. Another team mentioned that most of the problems they were trying to solve were linked to other departments as well and had no issue with suggesting process improvements. Members in another team mentioned that they did not distinguish between Continuous or Process Improvement projects. The Quality Manager of the Town Council summarized it well when he said:

> *"Our more important jump in our journey is to understand our government organization as a set of processes. We were looking for problems in isolated departments but after that we realized that the stronger problems were in the interface between departments. As a quality manager, I can tell you that we need both in orders to motivate the people to participate in our effort."*[4]

Another interesting finding is that the Kaizen team members across all four teams highlighted the significance of conversational spaces in their teams. Members mentioned that the

4) All quotes presented in this paper were translated from Spanish. The authors tried to keep the translations as accurately as possible.

meetings were enjoyable and provided a forum to discuss their job and also to freely express their ideas:

> *"We just wanted to go to the improvement meeting, because for us it was a way to break the routine and the job's stress, and of course, and also represent a space to express our own ideas about our own job."*

> *"It was the first time in my job life, that I feel the opportunity to express my ideas of how to improve the job, our police team really wanted to be involved to help each other to improve and be better organized in order to give citizens effective safety."*

One team also highlighted the importance of exercising good listening skills and developing techniques to both give and receive feedback:

> *"Before the teams, we never listened to each other, and even worse, we never practiced the concept of feedback, and we had big problems to obtain information. The citizens sometimes asked about their request and we didn't know where it was. However, the improvement teams help us to jump this barrier; we worked very hard and were excited when we presented our results in Spain Quality government forum. I feel great for us."*

6. Discussion

The findings show that the internal process of a Kaizen team is a significant part of their identity and should be incorporated as part of their Kaizen approach. The above mappings and comments from team members about the importance of their conversational spaces highlight that the TLI is certainly a method that can help Kaizen teams use Kaizen philosophy to improve their own team-a Kaizen within Kaizen team approach. Where they saw need for small incremental changes in certain aspects they could use the Kaizen methodology (Continuous Improvement) as a way to improve their team's conversational spaces. Where there were larger gaps that were important to the team or if there is an aspect that is crucial for their team, they could practice Kairyo methodology (Process Improvement) as a way to improve. The TLI provided a method for the teams to engage in this process of incorporating both CI and PI in their internal team process. As research on teams and organizations as conversations continue to increase, such a method would be very useful in the area of team learning and development.

Based on Kaizen philosophy, Kaizen teams would use both CI and PI to achieve better organizational effectiveness. Figure 5a is a simple representation of how Kaizen teams function.

Existing research on Kaizen teams has been conducted in the private sector and usually focuses on the CI process (Imai, 1986; Tanner and Roncarti, 1994; Sheridan, 1997; Brunet and New, 2003). Research on Kaizen teams in the public sector is scant and this paper contributes to this existing lack. An interesting discovery that surfaced from this paper based on some of the comments from team members is that Kaizen teams practice both CI and PI processes and is an important part of the organizational effectiveness (see quote from the Quality Manager of the Town Council). Figure 5b shows this process that is practiced in the public sector. Further research in both private and public sectors should involve including both CI and PI processes in organizations that practice the Kaizen philosophy.

Finally, in this paper, we propose that Kaizen teams should not be teams skilled only at developing better improvement processes (both CI and PI) for the organization but that such teams should also be skilled at engaging in team development using both CI and PI processes internally. The findings show that conversational spaces in Kaizen teams are critical to its success and therefore should not be neglected in research on such teams. However, up to only recently, we have not had a method to help teams deal with internal CI or PI processes. The TLI is perhaps the first measuring and mapping methodology that can be very useful for Kaizen teams to engage in their own internal Kaizen process. Both CI and PI processes internal to the team can be identified, selected and improved using this method. As CI includes generating incremental improvements and building on strengths, a team's Internal CI process would be to use the TLI to identify small gaps between the Real and Ideal mappings and strengths in the team's conversational spaces. A team's Internal PI process would be to identify large gaps or aspects that team members consider important or crucial to their team. Figure 5c represents this process.

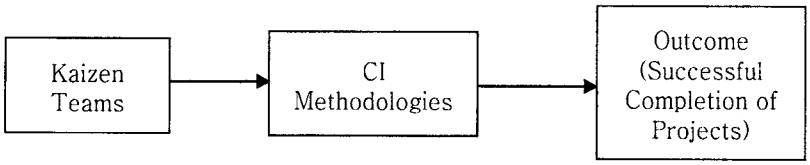


Figure 5a. Representation of How Kaizen Teams Function

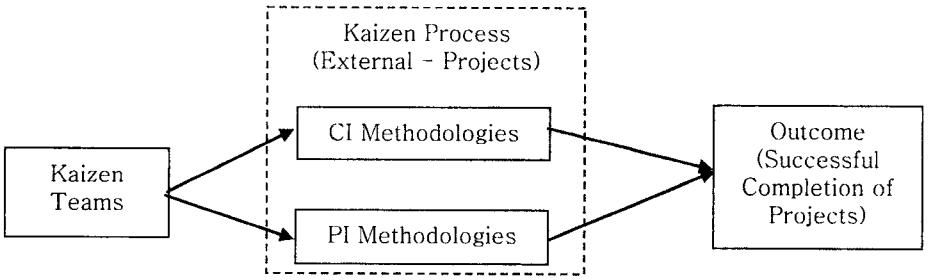


Figure 5b. Representation of the Kaizen Process involving CI and PI methodologies

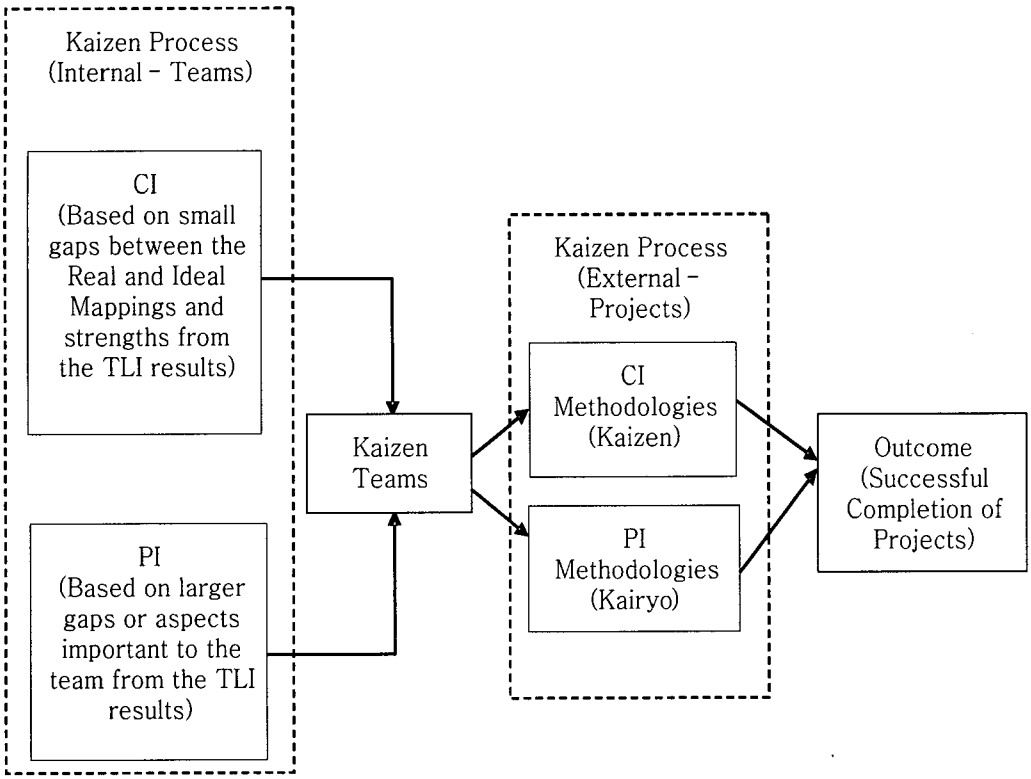


Figure 5c. Representation of How Kaizen Teams Should Function-Kaizen within Kaizen Teams Approach

7. Conclusion

As Kaizen Philosophy includes both Kaizen (CI) and Kairyo (PI) methodologies, in this paper we have proposed that Kaizen teams should engage in both CI and PI processes when working with projects for the organization. To date, there have been limited studies on Kaizen teams in the public sector. In this paper, we not only look at Kaizen teams in the public sector but also argue that such teams should practice the Kaizen philosophy (including both CI and PI processes) when working with projects. We push this further by also proposing that Kaizen teams should engage in Internal CI and PI processes as part of a holistic Kaizen process. Therefore, we assert that the Kaizen philosophy for Kaizen teams involves both internal (conversational spaces) and external (methodology) perspectives that would contribute to both team and organizational effectiveness. In this paper, we focus on the Internal Processes (both CI and PI) using the TLI as an effective method for Kaizen teams to engage in the Kaizen process-in essence, Kaizen within Kaizen teams.

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