THE THINKING SPACE: THE ENACTMENT OF A PLATFORM FOR CSP

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ABSTRACT

This paper focuses on describing the process of enactment of a 'platform', namely, The Thinking Space (TS), as a device for Critical Systems Practice CSP. This is part of a research project that generated a series of findings contributing to the study of the process whereby different systems methodologies, methods, tools and techniques are used in combination. This process is known as Critical Systems Practice (CSP). The study yielded 'defensible generalisations' from a series of research themes explored. These defensible generalisations or contributions relate to three research issues relevant to CSP, namely, (a) pluralism, (b) improvement, and (c) the role of the agent. The learning derived from these research themes led the researcher to formulate the 'transferable problem solving capability' of the study: the enactment of 'platforms' as devices for operationalising CSP. Platforms are defined as 'organisational and intellectual spaces' enacted by actors and evolving with the changing nature of actors' moment-to-moment interactions, by means of engaging in a continuous mutual research endeavour and of engaging in enhancing collective competence, in order to pursue an informed practice (to pursue CSP).

The study is the result of reflection and debate, which was reciprocally enriched by theory and practice. It presents the findings of an organisation-based action research project, where the researcher entered into a real-world situation and aimed both at improving it and acquiring knowledge about the experience. He became, for a period of three years, involved in the flux of 'real-world problems' within an engineering company that invited him to do research by using systems ideas in practice.

This paper thus recapitulates on the contributions that this research endeavour had on the three research themes focusing on the emergence of a particular 'platform', the Thinking Space (TS), as a device for operationalising CSP; the fourth 'emergent' research theme. Concerning the 'transferable problem solving capability' of the study, the TS is one particular device considered to provide evidence for proposing the research theme of 'platforms'.

Keywords: platforms; Critical Systems Practice; transferable problem solving capability, pluralism; improvement; role of the agent.

1. GENERAL RESEARCH APPROACH

According to Checkland and Holwell (1998), the constitutive elements of any research are: (a) an area of concern, (b) a methodology to go about the study and (c) a framework of epistemological principles. It is in terms of these three elements that what counts as learning will be recognised. The following figure presents the elements entailed in "any research in any mode" (Checkland and Holwell, 1998, p13).



Figure 1.1: Research Model (Adapted from Checkland and Holwell, 1998, p13)

As Checkland and Holwell put it "Particular linked ideas F are used in a methodology M to investigate an area of concern A. Using the methodology may then teach us not only about A but also about the adequacy of F and M" (1998, p13). Therefore, this figure suggests a cycle that aims at generating a series of findings about the area of concern A, the framework of ideas F and the methodology M used.

In the case of this research the area of concern A was defined as follows. The Commercial Director of Alstom Power Ltd, Neil White, and the Dean of the School of Management, Professor Mike C. Jackson, signed the agreement supporting this research. The area of application of the research, A, was not clearly stated. However it was described in general terms as "participating in the design and implementation of the new organisational structure in order to support the business strategy."

As the study progressed, it became clear that the area of concern A was more general and could be better described in the words used by Professor Mike C. Jackson, during the meeting in which the contract was signed, as "testing and developing systems ideas and methodologies in practice." As the study evolved, it became clear that the research was not concerned with 'problems'¹ but with '*problem situations*'². This evidently involved tackling real-world management problem situations, thus defining the area of concern, A. The reflection upon the everyday flux of events and ideas using CSP became the methodology to be used. This carried the implication that Critical Systems Thinking (CST) became the framework of ideas F supporting the intervention. This endeavour is what ultimately is described in Figure 1.2 below.



Figure 1: Research Model

Figure 1.2: This Research Endeavour(Adapted from Checkland and Holwell, 1998, p13)

This research produced findings at three different levels: (a) the area of concern A, (b) the methodology M and (c) the framework of ideas F. These findings are generalised in the concept of 'platforms'. This paper describes the emergence of one of such platforms, namely the TS.

1.2. Research Nature

¹ "All problems ultimately reduce to evaluation of the efficiency of alternative means for a designated set of objectives" (Checkland, 1981, p154).

² "A nexus of real-world events and ideas which at least one person perceives as problematic: for him other possibilities concerning the situation are worth investigating" (Checkland, 1981, p316).

This research was an organisation-based action research. It was not concerned with testing hypotheses, but rather with identifying research themes from which lessons could be learned. The crucial elements in a research approach of this kind according to Checkland and Holwell (1998) are:

- A collaborative process between researcher and those involved in the situation.
- A process of critical inquiry.
- A focus on social practice.
- A deliberate process of reflective learning.

In this order of ideas in general the aim of the study was to inquire in the area of concern A by using different methodologies, methods, tools and techniques as required being consequent with the methodology M (reflection using CSP) and the framework of ideas F (CST) producing findings at these three levels. Naturally, since this research was concerned with real-world situations it continually evolved, becoming an ongoing cycle; this cycle, as an ideal type, is shown in Figure 1.3.



Figure 1.3: The Cycle of Organisation-based Action Research (Adapted from Checkland and Holwell, 1998, p15)

This cycle involved the following steps: first, stating the particular themes in which the researcher is interested; second, declaring in advance the framework of ideas F and the methodology M; third, entering into the real-world problem situation; fourth, taking part in the change process in the situation; fifth, reflecting upon the experience; and finally, recognising what counts as learning as derived from the findings and contributing to the generation of new research themes. It is important

to point out that this cycle was not a one-loop cycle but rather an ongoing process. The next section presents what constituted the research themes.

1.3. Research Themes

This ideal cycle of organisation-based action research (Figure 1.3) starts by declaring what constitutes the research themes. In this case the initial research themes were pluralism, improvement and the role of the 'agent'. They constitute issues of research in CST according to Jackson (2000) and Mingers (1997). The following subsections provide a brief introduction to each of these initial research themes.

1.3.1. Pluralism

Pluralism in management science is, in the broad sense, the use of different methodologies, methods, models and techniques in combination (Jackson, 1999). According to Jackson (1997), pluralism is the subject of debate in different disciplines: organisational theory (e.g. Martin, 1990; Reed, 1985), information systems (e.g. Hirschheim, 1985; Klein and Lyytinen, 1985; Walsham, 1991), operational research (e.g. Brocklesby, 1995; Ormerod, 1995), and in the systems field (e.g. Jackson, 1997, 1999, 2000; Mingers and Gill, 1997; Taket and White, 1997, 2000). There are already reports of *practical* combinations of methodologies and methods in the literature (e.g. Bennett, 1985; Eden, 1993; Taket, 1993; Ormerod, 1995, 1997), as well as theorisations about combining them (e.g. Mingers, 1997; Spaul, 1997; Taket and White, 1997; Midgley, 1997; Flood and Romm, 1997). Nevertheless, "much remains to be done" (Jackson, 2000, p393). The issue of pluralism in problem solving and intervention in organisations is thus of much relevance and for the present and future of management science. This research theme is thus concerned with the fundamental philosophical and practical questions raised about how to address issues related to the use of a diversity of paradigms, methodologies, methods, tools and techniques in combination, that is the operationalisation of CSP.

1.3.2. Improvement

The interest in this research theme originated with CST, whose 'creators' sought to develop methodologies serving the 'emancipatory interest'. In the 1990s CST still embraced emancipation but as part of a broader pursuit: human improvement, defined by Flood and Jackson (1991b) in terms of enhancing those circumstances for the realization of the potential in all individuals. In these days, it has been accepted that the Habermasian universal position of emancipation has been undermined and the postmodernist argument that the best that can be achieved is "local improvement" (Jackson, 1997; Midgley, 1995; Flood and Romm, 1996a, Cummings, 1994) has become accepted.

The debate about what is considered improvement in the context of CSP takes place within a context of social theory. Jackson (2000) concentrates on four types of social theory, namely functionalist, interpretive, emancipatory and postmodern approaches. In CSP it seems possible and desirable to bring different paradigms, methodologies, methods, tools and techniques into play within the same intervention. The second research theme is thus concerned with making possible processes of improvement, bearing in mind the different notions of improvement according to different paradigms.

1.3.3. The 'Agent'

Presently, the role of the agent conducting research is increasingly assuming relevance in management science literature. For some the 'agent'³ carrying out the research is not to be thought of as a homogeneous entity, as in conventional management science research; rather "multiple agendas and stances, values and principles need to be recognised within each agent" (Taket and White, 2000, pXV). Moreover, in doing social and organisational research, the 'agents' are considered as "always contingent, multiple, dynamic and continually in the process of making and remaking themselves in interaction with the context in which they find themselves" (Taket and White, 2000, pXV). Therefore, the agent "should not assume some ahistorical, abstract subject rather than a particular, culturally situated and gendered person" (Mingers and Gill, 1997, p245). These concerns constitute a third research theme.

1.4. Writing Style

Concerning the role of the researcher, it was perceived that "far from being a robotlike data collector, [the researcher] ... *[wa]s the research tool*" (Taylor and Bogdan, 1984, p77). Given that the researcher in this organisation-based action research must not only have applied different methodologies, methods, tools and techniques, but also engage in the improvement of problem situations this study is written as a 'thick description' (Geertz, 1976, 1983), and the account is narrated in the first person. The strength of this style of writing lies in the wealth of detail conveyed in thick description. This account, presented from the researcher's perspective, describes the different situations in which participants, including the researcher himself, engaged in combining methodologies, methods, tools and techniques to improve the problem situations, in other words, their engagement with CSP.

The study was the product of a relationship between these different stakeholders: the researcher, the research community, and those involved in the organisation

³ "The agent might be an individual, a group of individuals, a department or division in an organisation, an entire organisation or a 'community'" (Taket and White, 2000, pXV).

Thus the recognition of 'the person' -the researcher; the 'I', 'myself' -was necessarily part of organisation-based action research process and resulted in a subjective style of writing whereby the author was present (White, 1987)

2. INITIATION

I started this study in Alsthom Gas Turbines on a cold morning in February 1998. Neal White, who represented the company in the research agreement, was about to leave. He explained that the implementation of a new organisational structure was already in place, and to a great extent the organisational focus became the implementation of the five processes suggested by the Project Implementation Team (PIT). Neal mentioned that Tom Schjerve, PIT's leader, and his team of managers in the Package-Engineering Department were concentrating efforts on Process 1. This was considered the process that could make the highest competitive difference. The Package-Engineering Department, in association with the Controls Department, were considered the ones who would make the process of standardisation feasible. Process 1 was seen to be the strategic process by which the company could make the required difference. The other processes were, to a great extent, a modification of processes already undertaken by the organisation.

Tom Scherve, the head of the Package-Engineering Department wanted me to find out what the climate in his department was in order to start preparing the conditions for the implementation of Process 1. I thought it was a nice way of starting to interact with the people in the department.

2.1. Expressing the Problem Situation

I carried out interviews using a rich picture as the tool for the discussion. I introduced myself and explained I was interested in finding out peoples' perceptions about the problem situations faced by the department and the organisation in general. In most of the cases I succeeded in engaging engineers in a conversation about their personal perceptions of the situation. The following is the rich picture that became the output of this interactive process.



Figure 2.1: Rich Picture of the Package Engineering Department

I presented this rich picture to Tom. This description was intended to provide a common understanding of the situation faced at the beginning of the study. This would give us a way to decide if our actions have had a positive impact. This would also provide us with a common language to facilitate our conversations when we discuss the problem situation.

The sort of problems that characterised the situation, which I fed back to the team, consisted of 'open ended'⁴ problems⁵, as presented above. There were no particularly optimal solutions to these problems. The team did not respond readily to solution by traditional methods of 'project management'⁶; these problems were too vast, multi-faceted and largely attitudinal. They were the sort of problems that would be affected by those who decided to study them. For these problems it seemed that only through the genuine involvement and commitment of the people who were part of the situation, could a lasting improvement be made.

I suggested to the managers that the organisation was undeveloped in ways to structure systems for tackling these sorts of problem situations. I invited the group to look at these open-ended problems under the umbrella of implementing Process

⁴ 'Open ended' problems are those which have many possible answers; that cannot been approached successfully by a restricted group of people and that might require people across departmental boundaries for their improvement.

⁵ In Checkland terms: 'a problem situation'.

⁶ Project management approach: define goals, owners and execute. Hard systems thinking.

1. My invitation was accepted, and from then on I was invited to participate in their meetings.

2.2. Process 1 Definition

Initially, the implementation of Process 1 was perceived as a technical problem. Even though Process 1 was considered a very difficult task as a result of the number of variables and components that were required to be managed, it was seen as a clear option with which most people would agree and from which most would benefit. However, this project turned out to be a rather difficult one upon which to agree. Process 1 was defined as: A system staffed by the Commercial, Marketing, Package-Engineering, Purchasing, Controls, Projects Departments and CSC, to produce full customer satisfaction by matching customers' needs with preengineered (standardised) products and services through assisting the customer in the process of defining his/her requirements, in order to minimise the company's effort required to market, sell, supply and support products, services and information whilst exceeding customers' (internal and external) expectations.

During this process, systems tools like 'root definitions', 'CATWOE' and 'conceptual models' were also used to assist the activity (Checkland and Scholes, 1990). In a period of four months a major breakthrough in the group of managers was experienced. This breakthrough was a transformation in their perception of what they were called to do; the managers changed from visualising their actions in terms of 'executing' Process 1 to creating the conditions, the setting, to support Process 1. The following figure presents this concept.



Figure 2.2: Process 1 and the Support System

The focus was not so much in 'what to do' but rather on 'what was impeding' Process 1 from becoming a 'reality'. Issues such as the improvement of the control system, the system that has responsibility for keeping changes documented and under control, became important to be analysed in this context.

As a consequence of the organisational pressure, the group felt the need for speeding up the process of implementation. However, by this time the group saw Process 1 as a process with two main dimensions: technical and social. The technical dimension progressed to a point in which the input of actors was more often required. Involving people in systematic speculative conversations about the potential technical impact of changes injected passion into the research activities.

Regarding the social dimension of Process 1, since it was difficult to assume that all members of the organisation accepted the goals and objectives set by senior management and PIT, a wide discussion about the implementation of Process 1 seemed to be useful and was promoted. Consequently, the group engaged in creating a sort of 'device', which allowed this process of speeding up to take place approaching both the social and technical dimensions of Process 1.

2.3. Creating a 'Device'

The process of creating this 'device' was a difficult but enriching process. The initial focus, as previously mentioned, was the implementation of Process 1; however, as conversations progressed, a new concept was brought in: increasing the collective competence of actors (De Zeeuw, 1986, 1993). Process 1 was still there as a central point, but now the general concept was considerably bigger. New boundaries were considered (Midgley, 1997).

A 'new' sort of hypothesis was paraphrased: "assisting on the interface with actors, to support them in reflecting and assessing their own problem situations, which will impact positively on the implementation of Process 1 and the general situation of the organisation." The group and I thought this emphasis on increasing our collective competence could improve the general perception that most actors had of operating within a system over which they had little or no influence, changing the way the group saw their responsibilities as limited to the boundaries of their job. We also felt that it was possible to develop feedback channels between actors.

These were some of the ideas which later constituted the Thinking Space (see Table 2.1), as defined with this group of managers and from there on, the group of coresearchers.

Table 2.1: Properties and Characteristics of the Thinking Space

- An action language. We will focus on 'actors' and 'activities,' in everyday work. This 'language' has two clear implications:

* First, these concepts are part of the daily language.

* Second, the language chosen will indeed simplify the formulation of problems, even in the sense of making it easier to construct a useful approach.

- **Structured conversations.** We will carefully design a 'structure' that configures a possible way to approach the relevant issues faced by actors. With the purpose of assisting in structuring 'problems' rather than directly solving them. Usually a well formulated (structured) problem can be easily approached. Some formulations make it easier to recognise the relevant and the irrelevant aspects of a problem (Vahl, 1996, 1997).

- **Co-equal actors.** We will facilitate a space where equal participation is enforced. Each individual in this space should have completely open possibilities to express in a structured manner the situation that he/she is facing in order to increase his/her own competence. Facilitating a space for sharing information with different actors under equal conditions enhances the process of change because participants can review their previous positions and thereby can help other actors to become more competent. Increasing individual competence will impact positively on the collective competence.

- Systems approach. Taking the company and the Engineering Department, in particular, from which the Thinking Space emerges, will determine what is seen as relevant to the system and hence what should be studied. The choice of such 'problems' depends on the value that the actors assign to the problems through their interactions.

- An activity, not a programme. This space must not be seen as another company programme. This should be a way of doing and acting and not talking about.

- The researcher as actor. As a result of the last point, the presence of the researcher adopts another connotation; he has to be seen as an actor and not as an observer. Therefore, it is not acceptable for this person to only participate in conversations; he has to be part of people's actions. The main action is to facilitate their conversations through the Thinking Space.

- A dynamic process. It is a natural conclusion of the properties previously defined. The Thinking Space results from the dynamic interactions between actors who give shape and frame this space toward increasing their personal competence and thus the collective competence (June 1998).

The Thinking Space (TS) was the fancy name given to the set of rules presented above. The issue then became how to make these rules operational.

2.5. Making the Thinking Space Operational

As a first step in the process of making the TS operational, I collected different viewpoints about the problem situation. I did this by interacting with the people in the Commercial Department and the Package-Engineering Department. Since one of the rules was 'an action language', we focused mainly on problems faced by the 'actors' in their usual activities (situation-driven). After collecting 234 descriptions of problems, I sent them back to the actors. When they responded, "We cannot do much with them", I classified the information and gave it back to them. I managed to reduce the list to 25. Then I engaged with actors to select what they considered

relevant issues. We arrived at four relevant issues: the business manager role, the business process, overtime engine delivery and management of priority conflicts.

Within the group of co-researchers it was decided that during the interactions with actors through the TS, the use of Process 1 as a label would be brought into play as little as possible; while not abandoning the concept. We then centred on developing a way to structure conversations so that actors could directly engage in solving their difficulties. The TS became the setting for this structure, which was suggested by Vahl (1996, 1997). Vahl's strategy consists of developing a chain of causes and effects using the linguistic structure of "*if* ____, *then* ____." Therefore, *if* person n had information x, *then* n could do y. I would then go to person m, who was responsible for x, and ask m what was needed to produce the outcome x required by n. Person m would answer, *If* w *then* x, and so forth. This strategy eventually became a structured way of thinking among the group of co-researchers.

This emphasis on TS fostered a new way of relating to both engineers and managers in the Departments. In the next section I present what triggered the 'liberation' of my role and the release of the full potential of the TS as it was initially defined.

2.6. Releasing the Thinking Space

Before explaining what I mean by releasing the TS, I must say that my previous experience with trying to make the TS operational was essential for what was to come. The process of operationalising the TS helped to build a good relationship with actors, and I acquired a first-hand knowledge about the organisational situation. I was called upon more and more often to comment and bring new variables of analysis into the activities and initiatives which managers and engineers were implementing. To some extent I started to bring in 'critical awareness'.

Somehow, a new implicit agreement developed. The TS became a sort of 'device' to bring together creative dialogue about different initiatives, where managers had the chance to raise their own ideas to other managers and employees without necessarily being associated with their higher position in the hierarchy (co-equal actors). On the other hand, employees had the potential to do the same within their department or in other departments. The TS became another communication channel accessible to 'everyone' in the organisation. The TS assisted actors to make visible the 'patterns of change', with the aim being to influence engineers and managers thereby increasing the collective competence.

The TS not only became a creative way of assisting the process of implementing Process 1 but also assisting the mapping of the organisational processes (Quality Department) and to some extent the creation of the planning system for the Package-Engineering Department. This strategy helped actors interface by

supporting them in reflecting upon and assessing their own problem situations. Actor's reflection and assessment were captured in basic documents, which were shared and disseminated broadly. Multiple perspectives were also included in the documentation. My input usually consisted of bringing new perspectives to the situation along with appropriate methodologies, methods and tools based on collective reflection towards critical awareness. Some of these systems methodologies, methods and tools were Rich Pictures, Root Definitions, Conceptual Models, the Viable Systems Model (Espejo and Harnden, 1989), Systems Metaphors (Flood and Jackson, 1991a; Morgan, 1997, 1993), and System Dynamics (Senge, 1990; Stacey, 1996b).

3. Reflecting on Research Themes

As illustrated in the cycle of organisation-based action research presented in Figure 1.3, my participation in the TS produced a series of reflections based on the research themes. They are presented below.

3.1. About Pluralism

3.1.1. At the Level of Methods, Models and Tools

During this TS project methods such as rich pictures, root definitions, conceptual models, the viable system model, systems metaphors and system dynamics were used in a flexible manner. The TS's importance did not reside in the use of different methods but in that these methods were used in the pursuit of increasing 'collective competence'. Thus, instead of only seeking the application of those methods to tackle problem situations, the Package-Engineering management team moved towards informing their use.

I was called more and more often to comment on and bring new forms of analysis into the activities and initiatives in which managers and engineers were involved, thereby enhancing a space for creative thinking. Bringing in new perspectives and reflecting on them became a new implicit agreement among participants.

The TS became a device for generating and discussing different creative initiatives and ways to implement Process. The TS supported actors in reflecting and assessing their own problem situations. This process of reflection and assessment was captured in basic documents that were shared and disseminated throughout the organisation. This process implied an initial shift from a functionalist to an interpretive rationale. Progressively, multiple perspectives in this documentation constituted the creative input that triggered pluralism at the level of contemplating different understandings. My part consisted in introducing new perspectives. Systems-based methods and tools mentioned above were used in this creative endeavour.

By shifting the focus from problems related to Process 1 to increase collective competence, it was possible to move towards informed pluralism, rather than pragmatism or imperialism. The afore mentioned systems-based methods and tools were used to bring about new perspectives. Reflecting on their use became a new implicit agreement among participants. The group of co-researchers moved towards a support system to promote critical awareness about the use of different methods and tools in order to generate improvements in our interventions.

3.1.2. At the Level of Methodologies

The TS represented a major breakthrough by delineating a larger process involving judgement and interaction among actors, where different tools and techniques were embedded (Mingers and Gill, 1997); that is, a methodology. This is described in Table 2.1. The TS proved useful in bringing about different assumptions supporting the actions to be taken. It is to be highlighted that the TS emerged from the participants, who became co-researchers.

Additionally, the TS increased awareness about the difficulties of adopting one model of management, namely the mechanistic. Progressively, the social dimension (practical interest) of Process 1, not only the technical, were observed. This awareness was consolidated as the TS evolved from becoming operational, to its full release as a 'space' to increase the collective competence of participants.

Consequently, increasing the collective competence also meant that political and cultural constraints, which could delimit the range of possible methodologies, were overcome. As Table 2.1 states, participants in the TS were invited to interact as "co-equal actors", which meant that hierarchical and cultural barriers (i.e. "managers are always right"), the tendency to blame others and defensive attitudes were considerably overcome. Opening a space for participation, where different voices could be heard, also meant overcoming political barriers.

3.1.3. At the Level of Paradigms

Although it is possible to see that different rationales were present in the TS, it is not possible to claim that the group of co-researchers and other participants were fully aware of these rationales. Consequently, it cannot be claimed that at this stage a critical systems meta-methodology was used to structure the way of thinking in which co-researchers understood and respected the uniqueness of the functionalist, interpretive, emancipatory and postmodern theoretical rationales.

In my case as researcher, it was clear that the dominant rationale exhibited at the TS was interpretive, while the emancipatory and functionalist were dependent. In fact, the main shift in rationale facilitated by TS was realising that the value of the process was not in generating an optimal model for Process 1, but in structuring debate about Process 1, nurtured by opening a channel for participation accessible

to all. This was very significant because actors started to conceive this as a dynamic and on-going learning process.

3.2. About Improvement

The TS was characterised by contemplating three different notions of improvement. Initially, managers from PIT emphasized a goal-based, functionalist notion of improvement. The emphasis shifted to 'participation as improvement' as a result of pursuing collective competence. Collective competence facilitated actions towards pursuing the 'practical interest', which initially was subverted by the 'technical interest'.

Simultaneously, the operationalisation of the rule of co-equal actors within the TS opened new possibilities for those 'alienated' or 'marginalized' by current power arrangements in the organisation. This was possible by capturing engineers' (and not only managers') perceptions, reflections and assessments in basic documents that were shared and disseminated throughout the organisation. This evidently corresponded to a notion of improvement reflecting a more emancipatory or postmodern rationale.

3.3. About the Agent

It was possible to discern the relevance of this issue for research and action, in terms of five main issues as demonstrated below.

3.3.1. Roles and Styles in the Facilitation Process

The creation of the TS meant the consolidation of my role as co-researcher. In contrast to my role in the previous project, I assumed the attitude of an explorer, rather than that of an expert. An essential aspect of this attitude of exploration was being "humble" (Taylor and Bogdan, 1984, p38). The research endeavour initially was vaguely formulated to allow for this exploration to take place.

The style accompanying this role was that of an inquirer. I became concerned with "ask[ing] simple basic... questions to uncover 'taken-for-granted' assumptions and reveal new different perspectives" (Taket and White, 2000, p166). The nature of the TS encouraged that the other co-researchers also adopted this style. In this way, together we contributed to enhance collective competence.

The relevance of the role and style adopted was that they contributed to enhance interactions among actors. It was now possible to talk of an agent operationalising a 'space' wherein both agent and actors could have access and enter. I nurtured this space in my role as co-researcher, a role in which I pursued facilitating interactions towards pluralism, critical awareness and improvement by enhancing inquiry. This understanding became embedded in my notion of increasing the collective competence.

3.3.2. Feelings and Emotions vs. Rationality and Abstraction

Assuming Process 1 meant those involved faced the difficulty of operationalising a project that was vaguely conceptualised. In addition, each relevant stakeholder in the project had different views about it. The group of managers in charge were not used at all to working under these circumstances. This group felt a challenge was ahead in terms of the boost this could represent in making organisational processes more agile. However, there was also a degree of frustration in terms of capturing so many different views. This feeling was then translated into the idea of enhancing the group's capability to tackle this task together.

This resulted in the group of co-researchers feeling the need to seek guidelines for improving their collective competence, which in a way evidenced the co-researchers' disposition for assuming certain levels of abstraction (see Table 2.1). Once these guidelines were in place, nothing prevented us from being flexible and contingent according to the local context, nor being sensitive to the feelings and emotions of the group. These guidelines provided a setting for interactions concerning research, which in turn allowed us to reflect on this process afterwards.

The above evidences that the concept of 'doing research' on increasing the collective competence constituted the relevant tactic used during this project in order to respond to the emotions and feelings in the group. Of importance was that the co-researchers designed the TS, thus developing a feeling of ownership.

3.3.3. Multi-methodological Competence

This project demanded a better understanding of methodologies, methods and tools corresponding to the emancipatory and postmodern rationales, challenging my multi-methodological competence. A better understanding was achieved through the enactment of the TS. The former experience enriched my theoretical competence and the latter complemented the process by enhancing my practical competence.

This shift in emphasis was evidenced when the Package-Engineering management team decided to focus on supporting Process 1 not by directly assisting in its implementation but by generating a 'space' for discussing its implementation. There was a change of perspective from a goal-oriented approach to a more critical approach, emphasising both 'learning to use' and 'learning about the use' of available methodologies, methods and tools relevant to Process 1. The pursuit of collective competence within the TS epitomises this view. Indeed, to a good extent, '...supporting actors in reflecting and assessing their own problem situations...' involved enhancing their multi-methodological competence.

I found that there was a direct correspondence between enhancing the coresearchers' multi-methodological competence and enhancing mine. To the degree

to which co-researchers questioned and confronted assumptions, my own process of critical reflection was more and more stimulated as was theirs. Facilitating their conversations through the TS defined my main action. The two-way process of enhancing this competence, which took place between researcher and participants, was thus enriched within the TS.

3.3.4. Power-knowledge Formations

Notions like co-equal actors as defined in the TS defined forms of interaction of the agent with the power-knowledge formations which in turn framed the identity of the agent, the collective, as an increasingly more competent collective (more competent group of co-researchers): "We will facilitate a space where equal participation is enforced. Each individual in this space should have completely open possibilities to express in a structured manner the situation that he/she is facing in order to increase his/her own competence. Facilitating a space for sharing information with different actors under equal conditions enhanced the process of change because participants can review their previous positions and thereby help other actors become more competence." (TS).

The TS evolved by paying attention to social factors at work, groups, leadership, the informal organisation and the behaviour of people. Nevertheless, emphasis on the human aspect of the organisation was seen by some of the managers as a means to achieve more return from those involved; the efficiency of the organisation would be improved as a result of aligning individual goals to organisational goals. Actors sometimes suggested that the TS was a mechanism of 'manipulating' workers to serve the interests of managers. These constituted negative judgements about the TS, which represented interventions in the power-knowledge formation (Midgley, 1997).

3.3.5. Personal Remarks

At the start of this project, two aspects made me reconsider my role in the company. First of all, through my first year's report I had a better understanding of what I could be doing in the organisation. By then it became clear that I wanted to contribute to the debate in CST. Secondly, things changed considerably in the organisation in such a way that I no longer had a desk when I returned from Christmas holidays. This made me think about reconsidering my role as one of expert-consultant; somehow, I felt I again had to earn a role amongst members in the company. My role soon became clear through the TS, where the common concern of us all was to inquire about and explore issues together. My aspiration then became to serve as a catalyst in order to best facilitate interactions among actors and increase their collective competence.

4. THE THINKING SPACE AS A PLATFORM: A NEW RESEARCH THEME

The notion of 'platform' linked the three initial research themes in a particular manner. By reflecting on these research themes based on the experience, it was possible to put forward this new research theme. This notion of platform was not about creating a new methodology or meta-methodology for the application of CSP but about 'delineating' an 'instance' that contributed to its operationalization, whilst giving particular light to the issues of pluralism, improvement and the role of the agent.

Upon reflection it was possible to isolate two characteristics that accounted for the enactment of the TS as a 'platform'. These two characteristics constituted two intertwined forms of engagement: (a) engaging in a continuous mutual research endeavour; and (b) engaging in pursuing collective competence.

a) Engaging in a continuous mutual research endeavour can be described as engaging in constituting a setting that allows for reflection about problem-solving methodologies, methods, models and tools relevant to the actors in a particular problem situation. The TS as a platform, then, allows for participants to 'enter' into their own knowledge about the organisation as a social system and about its transformation processes. In practice an organisation, as a 'human activity system', is not a research matter for participants in their day-to-day activities; it is only from the platforms like the TS, that the organisation becomes a research matter 'observable' (to be reflected upon) by participants.

b)Engaging in pursuing collective competence. The TS, as a platform involved continuous enactment and re-enactment until it became a "permanent part of the continuous learning in the company beyond the implementation activities" (Jackson, 2000, p419). To become engaged in improving collective practice involves developing multi-methodological competence. This becomes a two-way process between researcher and participants (co-researchers). Hence, the enactment of 'spaces' favouring the "we think" becomes essential. In the scenario of such 'purposeful' systems (Checkland and Scholes, 1990).

A 'platform' could then be defined as 'organisational and intellectual space' **enacted by** *actors* and evolving with the changing nature of actors' moment-tomoment interactions, **by means of** engaging in a continuous mutual research endeavour and of engaging in enhancing collective competence, **in order to** pursue an *informed practice* (to pursue CSP).

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