Progressive Learning Processes Model – Interpretive Methodological Framework for Human Systems Inquiries

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Abstract

The purpose of this paper is to present the Progressive Learning Processes model. The conceptual model presented in this paper provides an interpretive methodological framework for research conducted with human systems in the workplace. By using Grounded Theory we were able to better understand the nature of information systems implementation projects within an Australian public sector higher education institution. This multifaceted model is comprised of interlinked, and overlapping phases. These are: (a) co-operative inquiry methods, to determine social context and organisational culture, which included purposeful recruitment of participants, and used an assortment of methods; (b) reflections and discourse analysis, which included jump starting change through collaboration and open dialogue; (c) purposeful action, which included putting ideas and theory into practice.

Applying the selected methodology to the situated inquiry appears to recognize and preserve complexities of communication in organisational settings, and enhance individuals' capabilities for adopting effective decision making mechanisms when managing expectations of Senior Management.

Keywords: Progressive Learning Processes model; Grounded Theory; effective decision making; human systems inquiry.

Introduction

This research examines the relationship between social interactions and social constructionism in a public higher education institution with the aim of improving decision-making processes through the interpretive methodological framework of the Progressive Learning Processes model.

The research is underpinned by several philosophical assumptions that come from the interpretive tradition. This implies a subjective epistemology and the ontological belief that reality is socially constructed.

Using Grounded Theory two relevant systems of purposeful activity and model building were used, and integrated. The two main ingredients used by the principle author to construct this model are; (a) Co-operative Inquiry – Research into the Human Condition (Heron, 1996); and (b) Soft Systems Methodology in Action Research (Checkland and Holwell, 1998). The first was used because of its applicability to the researcher's social constructionism and social interactions, and the latter was adapted considering the information systems field of application where the research was conducted. This resulted in formulation of a generic model that integrates co-operative inquiry into workplace conditions through the eyes of selected participants, reflections and discourse analysis, and purposeful action. All three mentioned phases have certain overlapping qualities that result in the Progressive Learning Process.

Co-operative Inquiry with People in Action Research

The work of John Heron into Co-operative Inquiry – Research into the Human Condition, (1996) presents a framework for conducting participatory action research in the workplace that stems from a pro-active stance to change. Heron (1996), suggests that Co-operative inquiry is a way of working with people in the workplace who share similar concerns and interests as the researcher, in order to: (a) understand the context, make sense of our realities and construct new realities; and, (b) learn how to act to change elements that the human interface may want to change, and discover how individuals can work better when in pursuit of quality conditions and realities in the social context of the workplace setting.

Co-operative inquiry replaces exclusive roles of researcher and participants with a co-operative relationship, so that all those involved work together, as co-researchers and as co-subjects. Heron and Reason (Handbook of Action Research, Chapter 16, 2001; pp. 179-80) summarise the formalised processes of co-operative inquiry as follows:

- All active subjects are completely involved as co-researchers in all research related decisions about both content and method—taken in the reflection phases.
- There is intentional interplay between reflection and making sense on the one hand, and experience and action on the other.
- There is explicit attention, through agreed procedures, to the validity of the inquiry and its' findings. The primary procedure is to use inquiry cycles, moving several times between reflection and action.
- There is radical epistemology for a wide-ranging inquiry method that integrates experientially knowing through meeting and encounter, presentational knowing through the use of aesthetics, expressive forms, propositional knowing through words and concepts, and practical knowing-how in the exercise of diverse skills intrapsychic, inter-personal, political, transpersonal, and so on. These forms of knowing are brought to bear upon each other, through the use of inquiry cycles, to enhance their mutual congruence within the collective inquiry group as a whole (inclusive of inquirer and inquiry group members.)
- There are, as well as validity procedures, a range of special skills suited to such allpurpose experiential inquiry. They include fine tuned discrimination in perceiving, in acting and in remembering both of these; bracketing off and reframing launching concepts; and emotional competence, including the ability to manage effectively anxiety stirred up by the inquiry process.

- The inquiry method can be both informative about, and transformative of, any aspect of the human condition that is accessible to a transparent body mind, that is, one that has an open, unbounded awareness.
- Primacy is given to transformative inquiries that involve action, where people change their way of being and doing and relating in their world in direction of greater flourishing. This is on the grounds that practical knowing-how consummates the other three forms of knowing propositional, presentational and experiential on which it is founded.
- The full range of human capacities and sensibilities is available as an instrument of inquiry (Handbook of Action Research, Chapter 16, 2001; pp. 179-80).

Soft Systems Methodology in Action Research

Soft systems thinking is concerned with situations as they are defined through action concepts (Checkland 1981; Checkland and Scholes, 1990). Its intellectual framework of ideas might be described in the following manner: People have intentions that constitute each action that they perform, where neither observation nor theory provides sufficient comprehension to be certain of those intentions. For example, a high level of excitement observed in a person's action might be theorised as threatening or conversely joyous behavior. It is therefore essential to progress beyond observation and theory to establish an 'authentic' exploration about what is taking place in the minds of involved participants and hence meaningful action can be taken.

Checkland and Holwell (1998, p. 157) describe the underlying principles of Soft Systems Methodology in action research, and its' formalised process as follows.

- SSM is not concerned with well-defined technical problems in organisations, it is more concerned with the ill-structured *problem situations* with which managers of all levels and kinds have to cope with.
- In the 1970s it was very much accepted for organisations to ignore their environmental contexts and address technical development problems isolated from their social relations. However, with this very competitive IS driven era in which we live in today, it is very difficult to ignore the term 'socio-technical systems' and only adopt 'hard system' approach in our organisations. The connection of social elements to technology presents the challenge of continual change as social reality in human groups is continuously socially created in a never-ending social process, and hence it is not absolute but will change through time, sometimes slowly, sometimes very rapidly. Hence the persistence of human institutions and their change has to be explained.
- SSM assumes a more fluid social world, one that both persists and changes rapidly with the dynamic introduction of technology. Hence SSM provides a basis for research interpretation and learning as opposed to optimisation. The questions to be answered are of the kind: how do these particular people, with their particular history, currently construe their world? How did they construe it in the past? What leads to some situations being seen as problematical? What would constitute improvements? What accommodations are possible, leading to what actions? How would they be judged? Checkland and Holwell (1998, p. 157)

Checkland and Holwell (1998) note the fact that the SSM approach may be considered as a radical way of conducting research since the work of Orlikowski and Baroudi (1991) discussed the approaches and underlying assumptions in research papers in IS and found that 95 percent of the papers studied were in fact based on a positivist epistemology. The Formalised process, 'novice' SSM, as presented in Checkland and Holwell (1998, p.160) is as follows:

- SSM's focus of concern is a human situation which at least one person considers problematic. The development of the approach stemmed from the realisation that all such situations had at least one element in common: they contained people, and people were trying to take *purposeful action*. Hence methods of building such models were developed. The 'human activity system' consists of two sub-systems: a set of activities linked together according to their dependent relationships so that the whole system would be *purposeful*; and a monitoring and control sub-system so that the whole system could in principle survive in a changing environment. In order to build such models there needs to be a careful consideration of the 'root definition' also referred to as RD; and guidelines of well formulated RD have stood the test of time as demonstrated in (Smyth and Checkland 1976) work;
- Purposeful action can always be interpreted in multiple ways. This interpretation depends on all stakeholders' perceptions that are involved in the event. Hence the need for acknowledging 'soft systems' in defining purposeful action for particular events or development of 'hard systems' is necessary to be able to identify relevant action required for the task;
- SSM as a methodology is a set of principles of method as opposed to a precise method—it is adapted by its' users both to the demands of the situation they face and to their own mental modes and casts of mind. Users of SSM have to *learn* their way to versions of the approach to which they are comfortable Checkland and Holwell (1998, p.160).

Background

The study is concerned with the establishment of communication-bridges between stakeholders, in particular between front line staff and Management of information systems in a public sector higher education institution western Sydney (HEIWS), to manage expectations and involve all stakeholders concerned in decision-making processes.

The information system was implemented to deal with student enrolment matters, and is the creation of an interstate Australian University that customised the system based on Government directives over five years ago. Eleven other Australian Universities "joined the boat" for the implementation of this system, as opposed to exploring off-the-shelf information systems options. This was mainly due to the Universities lack of financial independence as individual bodies. One of those Universities' is the organisation where the situated inquiry was conducted.

Generally speaking, as is the case with information systems, the need for the system to be updated surfaced as Universities continued to follow new Government and legislative directives, and organisational processes continued to evolve and change within an evolving organisational

culture. Hence, module implementation projects were required to customise the system in order for the system to meet the demands made on the organisation by the system's stakeholders and to integrate the system to its evolving organisational structure and business processes.

The researcher was to work with a one person team on a module implementation project, as part of a larger systems team, and the larger organisational context.

Co-operative inquiries, reflections and discourse analysis, and purposeful action sessions, were conducted with both the operational manager participant (the "one members" team, on a weekly basis), section tactical-executive manager participants (at the time, through holding two interviews), three end users of the system ("once-off" interviews), and a department tactical manager participant (at the time, conducted two interviews), for the period of three months during the first cycle of participatory soft systems methodology.

A steering committee had already been established to monitor the implementation and evolution of the information system within the organisation, and the committee was comprised of Strategic and Tactical Management memberships. There were approximately twenty members on the committee and meetings used to be held on quarter yearly basis prior to the researcher joining the organisation.

One steering committee meeting was attended by the researcher during the first cycle of action research, and was part of the purposeful action phase of the devised methodology.

Methodology: Participatory Soft Systems Methodology – The Progressive Learning Processes Model

With this stance in mind, the author identified the area for inquiry, to be bounded within social construction through social interactions, meaning that individuals are enveloped within a certain perceived organisation's social context and working on an information systems module implementation project. Hence, adapting Checkland and Holwell (1998) and Heron (1996), the PSSM Progressive Learning Generic Model shown below in **Figure 1** emerged, as a result. The model is cyclic in nature and complex in the overlapping interrelationships existing between its phases.

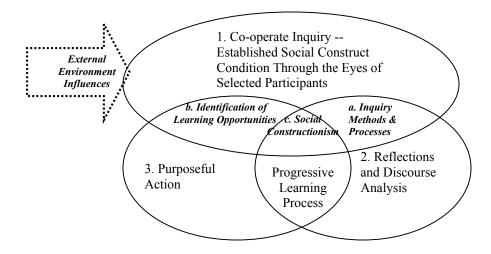


Figure 1 PSSM Progressive Learning Process Generic Model

Every encounter of human interaction encompassed within each phase of the model, and enveloped within a specific situated inquiry, potentially contributes to a progressive learning process experience, which may be considered as weak social construction at that particular instant, yet when lessons learnt progress over an accumulated period of time or completed cycles of the generic model, they would eventually lead to strong social construction. It is in many ways considered to be an evolutionary change of socially constructed old habits to develop new habits.

Participants in this generic progressive learning process are not passive in the sense that they have a say into constructing the learning experience. Researchers undergoing this type of methodology in their research work need to also understand that they too are involved in the progressive learning process, hence; to be aware that experiences at all instants of the process will also impact on their outlook and world view.

Co-operative Inquiry -- Established Social Construct Conditions Through the Eyes of Selected Participants

This phase is mainly aimed at exploring the social context encapsulating co-operative inquiry, not just based on theoretical scholarly research, but, also through the eyes of the participants. Its core purpose is for the researcher to discover the "what?" element of the inquiry, and by exercising active listening skills, also enable participants to better articulate the situated inquiry. In developing a picture through and by the eyes of the participants, the researcher and co-researchers can accurately ascertain the reality of the situation as they know it.

Assorted methods from general qualitative and quantitative methodologies can be used, such as; observations, semi-structured interviews, prompting questions, generic questions, silent listening, active listening, surveys, document analysis, and so on. This is due to the generic nature of the model and its associated phases. Once the purpose of the first generic phase is achieved, the second phase of the model can resume. Because this phase incorporates minimum social

interaction activities, it therefore contributes to the slow initiation of constructing new realities, and jump-starting the progressive learning process.

Reflections and Discourse Analysis

Coming from a social constructionist approach, this phase is mainly concerned with empowering participants to be engaged in interpretive procedures that are mainly concerned with knowledge that is situated within their local culture. It aims at initiating thinking and reflective processes focused on the system of power, which plays a large part in communicative behavior and practices in the workplace. By allowing participants the room to reflectively answer "the 'why?'" aspect of the evaluative sub-phase of the Progressive Learning Process, participants are sanctioned to examine their own desires that drive certain behaviors and practices, which they may have followed for a number of years, without really understanding as to why they act in this particular manner.

Hargadon (2002) presents the accumulation stage in teams of practice as 'access', which includes two philosophies of recombination and divergent thought worlds. Firstly, Hargadon (2002) notes that proficiency is derived in some way from the prior existence of its techniques. In organisations, new information often materialises from the recombination of existing incongruent ideas or is activated by applying a new standpoint to an existing expertise. Thus, this phase is about finding reasons through communicative interactions, to further contribute to the construction of new realities, and progress of the learning process. The aim is not achieving dramatic and fast results; rather it is the purpose of this methodology to achieve sustainable change for the researcher and co-researchers alike.

This phase of the methodology is more structured, based on the four stages model for communication processes and behaviors. The first stage is one during which experience is formed within a common context or focused within a single point from diverse organisational areas (Drach-Zahavy and Somech 2001; Gibson 2001). In the second stage information is shared through interactive processes (Drach-Zahavy and Somech 2001; Gibson 2001; Jarvinen and Poikela 2001; Nonaka and Takeuchi 1996). Third, individual staff work together and individually, to interpret, analyse and evaluate the available information, or shared realities (Crossan 1999; Drach-Zahavy and Somech 2001; Gibson 2001; Jarvinen and Poikela 2001; Nonaka and Takeuchi 1996). The final stage is one in which members integrate and construct the information they have communicated and developed into a new understanding or reality that aims to progress the organisation's cognitive task (Gibson 2001; Jarvinen and Poikela 2001).

Mapping this knowledge across to the emerged model, researcher and co-researchers use social interaction processes of: (a) Internal, i) Reflection & Evaluation; (b) External, i) Collaboration; ii) Empathetic Listening; and iii) Planning and Decision Making.

Figure 2 below, provides a diagrammatical representation of the processes involved in the second phase of the model, and their interdependencies with the generic progressive learning process model shown in **Figure 1**:

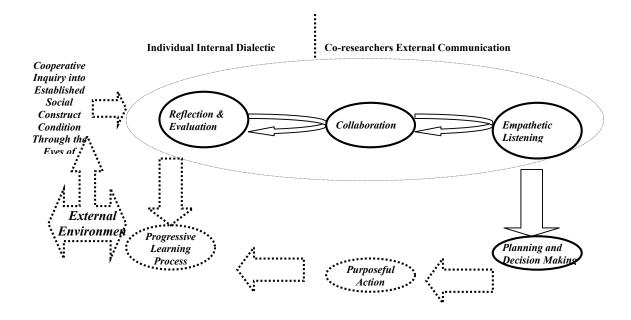


Figure 2 Reflections and Discourse Analysis Processes

As stated above, this is a complex infinite process of change, development, progress, and growth. The unbounded nature of this model, as previously considered, is mainly due to the multi-directional nature of impact made on and by participants and their social construct, and multifaceted nature of surroundings, as well as subjectivity and "valued" contribution of: (a) individual; (b) group; (c) inquiry setting; (d) external environment; and (e) the "Global Village".

As this "valued" contribution continues to evolve with discovery and learning, so would the "valued" knowledge associated with these dynamic elements that contribute to the Progressive Learning Process model. This process takes place on an individual level, by all participants (including the researcher), and is not at any point of the inquiry requested to be disclosed (unless it is disclosed under the consenting free will of the individual), as information collected in the process of conducting this inquiry/research, while maintains anonymity, does not promise confidentiality. Hence, it is essential that participants, when consenting to co-search in the inquiry, are aware that this process is important to be undertaken by them, on an individual level – all participants do so in trust – and outcomes do not have to be shared in co-researchers' external communication processes meetings, as meetings are focused on the inquiry and not individual's personal self-discovery journey.

Empathetic listening is not concerned with the immediate reaction of human beings to provide the individual with what they consider to be a needed answer, nor is it concerned with playing back one's statement to them, to allow them to listen to themselves, through the words of another (such as that practiced in active listening), nor is it as passive as silent listening. Empathetic listening is concerned with the display of the listener's empathy towards the speaker's feelings, while maintaining their desire for the speaker to reach the answer they are looking for on their own. The listener's aim is to empower the speaker to obtain a resolution in relation to the matter being discussed, as they are prompted to search deeper within themselves for the answers, and

subsequently move to the final process of the second phase, planning and decision-making through reflections and discourse analysis.

Purposeful Action

The purpose of this phase is to address the scope of the inquiry; "the 'how?" element of the inquiry. It is concerned with doing, implementing, acting, and executing the collective decisions made in the previous phase, to obtain, certain agreed upon outcomes, results and resolutions concerned with the inquiry of constructing better workplace realities. This phase, embedded in progressive learning process, then seeks for the (a) Researcher to; i) Observe; ii) Obtain Feedback; and for (b) Researcher & Co-Researchers to; iii) Evaluate; and iv) Establish Lessons Learnt, in the final phase, and the over all cycle, of the progressive learning process. **Figure 3** further illustrates the processes incorporated within this phase.

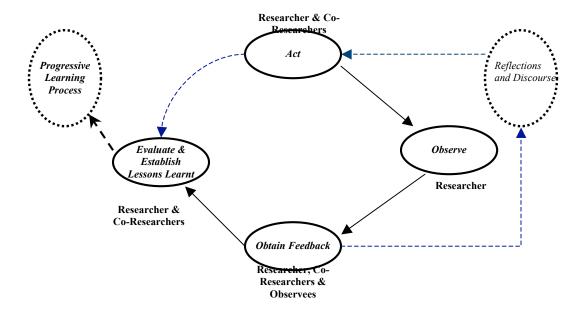


Figure 3.Purposeful Action Processes

The dotted spheres and arrows in the above diagram demonstrate the generic nature of the model and suggests that the model can be used in alternate ways as customised to various situated inquiries or the same situated inquiry, depending on the changes implemented in the surrounding environment, willingness, abilities, perceptions, and level of experience of researchers and coresearchers.

To supplement the researcher's informal knowledge of the Higher Education Institution Western Sydney (HEIWS), the researcher undertook various investigations into the organisation's established social construction through adopting various methods, both to gain a comprehensive picture of the organisation, and to enhance our understanding of the cultural context.

Document analysis, unstructured and semi-structured interviews, and recorded reflective sessions were conducted with co-researchers and selected participants. Interviews, and reflective session times varied between forty five (45) minutes to an hour and a half (1.5 hours). Interview

questions allowed co-researchers and selected participants to share without constraints their opinions and views. Observations were also noted at meetings, interviews, and reflective sessions by the researcher.

Interviews, reflective sessions, and observations were then used to devise a change plan. This plan was discussed and collaboratively implemented to improve the organisation's performance in the information systems module implementation project, and to establish lessons learnt for the organisation. Established lessons learnt, as observed by the researcher at attending one Information Systems (SISC) steering committee meeting, which lasted for one hour and forty five minutes (1.75 hours) at the termination of the third phase of the Progressive Learning Process Model, are used as an input into the second cycle of the Progressive Learning Process Model, and so forth, as this learning journey continues.

Only one cycle of the Progressive Learning Process model was implemented during the researcher's work in the situated inquiry, and the cycle's duration with the organisation was for the period of three (3) months; from 4th April 2004 to 7th July 2004.

Discussion

This section is organised by the phases of the model discussed above, and not by individual case studies for each co-researcher and selected participant. The data collected is grouped into the phases of the model that seemed most appropriate.

We did not aim to test of the model's validity, as the model in itself does not offer "answers" that may be perceived as valid or invalid. Instead, the model focuses on the type of data collected through the situated inquiry and various ways of interpreting this data – that the author believes are required to understand communicative acts in certain situated inquiries. Individuals are given pseudonymous to preserve their anonymity.

First Phase

Interviews with Selected Participants

The Acting Academic Registrar X, (AARX) states that the decision to use SISC as HEIWS's student system was made by the Board of Trustees;

"so the decision was made that we would adopt the UODV System – subsequently known as SISC and so that was made at the Board of Trustees I think probably about 97, 98."

An end user and Associate Professor in one academic department (NAPC), confirmed that the decision was 'imposed' on end-users by Executive management, and states the following;

"In terms of making decisions about SISC I have no input what so ever, I think that is a decision which was really made by others and basically, and I use the word 'imposed' in little bit, bits, I don't know that would've been... it would've been nice to have been consulted about what do you need, so that people could design a system which didn't just meet a particular organisations, but they could actually as an end user, what I consider

as an end user, I could extract stuff from. And in that context we were not consulted at all."

When a Senior Lecturer (ESLD) was questioned in relation to stakeholder involvement in the information systems implementation project, she was more in favor of involving administrative staff as opposed to academics, and stated;

"I think it in our level here; we have an exceptionally fantastic wonderful manager of the School. In our school we have a really brilliant Manager of the School, if she gets an email from in this instance been PMMN, - "she's right, she's dealing with it, and she comes back to us". In the greater scheme of things, probably for me there is not level of priority, I've got 'bigger things'. Yes it's viably important, but it's one of 300 things I've got to do where as one of the major things my admin manager is trying to fine tune because it's needs to happen so the enrolments are accurate etc., we don't get students, we don't need units, and other people can go and do it ..."

NAPC's perceptions of stakeholder involvement was different to both AARX's and ESLD's, NAPC stated;

"Yes, I think it is important, because at the end of the day, we had to service that, we feed the beast, and we also take information out from the beast, so I think that it is fairly important that people a. know how to use it; b. I think everyone should know how to get into it, look up particular information, but I don't necessarily think everyone should write to it, I think I would like to see a real trial with that one. Because too many people can hack in and corrupt it and do wonderful things like that at UOT where for a very small fee you could get a distinction."

Checkland and Holwell (1998) present effective and modern organisations as open systems and living organisms, which are formulated through the amalgamation of individuals who are empowered to engage in open discourse.

At terminating the recordings, AARX commented;

"My bureaucratic responses do not help your research, however, I am indoctrinated with bureaucracy that it is a habit."

Bakhtin (1929, 1973) comments on the influence of social constructionism on social interactions and states that the immediate social environment and broader social milieu wholly determines – and determines from within, so speak – the structure of an utterance (p.86). Utterance as such is wholly a product of social interaction, both of the immediate sort as determined by the circumstances of the discourse, and of the more general kind, as determined by the whole aggregate of conditions under which any community of speakers operates (p. 92).

Second Phase

Reflections with Co-Researchers

o Project Manager, (PM)

PM states;

"I was instructed that these were going to be the courses that were offered by two colleges; now, why two colleges rather than four, I don't know, but only two colleges were asked to nominate courses which they wish to have SISCR implemented in I suspect these colleges were chosen because they had courses that needed SISCR to help minimise administrative loads."

The PM also noted that she has been asked twice to provide feedback to Senior Management on the project's progress, and she so obliged. She comments;

"whilst I've been asked twice to provide feedback to SISC Steering Committee about where I'm up to, I have written a report at the beginning of this year about what I felt, made recommendations about what things needed to be changed, what I thought could be improved upon,";

In addition, the PM comments;

"But I do feel fairly isolated as I am, I don't sit on any of the committees that are associated with SISCR implementation – there are non. So my voice is diluted through AARY. I give him bits of paper, now what happens to it, it might get presented at SISC Steering Committee, but I don't know, unless I actually go and specifically ask AARY what happen with it, I don't ever get any specific feed back, I don't get any copies of minutes, I don't get any. I've never had any feedback from that steering committee. Not even in terms of saying what did they think of the pilot, which are the sorts of things I probably hadn't really thought about until I was speaking to you, and I thought, 'yes, it's true I've never had any feedback from them; good or bad about how the project is going."

People in organisations develop divergent awareness bases or view points because they belong to parallel segregated functional contexts (Dougherty, 1992), which are infrequently connected through anything more than intermittent ad-hoc interactions. The connection of these segregated contexts provides an opportunity for exchange of expertise that is unique to each mode of practice. Likewise, (Granovetter, 1973) emphasises the importance of casual associates or frail ties as sources of unique information.

Planning and Decision Making through Discourse Analysis

• Assistant Academic Registrar (AARY) and PM

The below dialogue between Department Head, AARY, and Project Manager, PM was facilitated by the researcher to empower discourse through open dialogue and social interactions.

AARY: "That's right unless these people communicate to their own people, then yes, there is no formal communication mechanism in place."

PM: "What happens when sitting out there in isolation with no tentacles going out, it's interesting!"

AARY: "Doesn't report to anybody and there is no formal communication mechanism from this committee to any of the constituents may be represented by these people."

As the dialogue evolved, the PM and the AARY both decided that the most efficient and effective plan of action was for the PM to attend the next SISC Steering Committee meeting.

Bakhtin (1929, 1973) states:

"It is not experience that organises expression, but the other way around – expression organises experience. Expression is what first gives experience form and specificity of direction" (p. 85)

Third Phase

Observations of Steering Committee Meetings Dialogue

PM attended the Steering Committee meeting to interact immediately with Senior Management. The Chairman directed the attention to the AARY to report on the progress of the SISCR module implementation project. The AARY stated that the paper he sent prior to the meeting in that regard is self-explanatory; however, PM attended the meeting to answer any questions. The Chairman then stated;

"PM, do you have anything to add?"

The PM resumed by explaining that because she is a one person team it makes it virtually impossible for her to meet all the demands in the project's set timeframe. The PM also continued to express her concerns in relation to the unrealistic expectations, without consideration to the circumstances surrounding the situation.

The Chairman was encouraging towards PM and supported her. In addition, it became apparent that members of the committee were interested to hear and assist the PM through her expressed predicaments. The Chairman also supported the view that additional staff are to be recruited in the PM's team, he stated;

"If there is budget, then we'll do it."

"There needs to be a business plan in place to recruit staff. While PM's efforts are impressive, there needs to be a team to re-affirm the important role of the SISCR module and SISCSC implementation projects as they run in parallel."

Due to applying more effective decision-making mechanisms within the situated inquiry, and through slightly shifting the organization from Mechanistic to Open Systems view, better decisions were thought out and reached by stakeholders of the information system.

Following the meeting, the researcher spoke with the PM in relation to her views about the events that took place in the meeting. The PM expressed satisfaction as she stated;

"At least they know the situation now, and they have the full picture."

As for the support she received from the Committee, the PM stated;

"All what we can do now is sit tight and watch if circumstances would improve and if commitments made would be delivered or actioned. In the meantime, I am going to continue with my work feeling less pressured and misunderstood"

Conclusions

The research conducted in a public sector higher education institution in Sydney examined the issues in connection with decision-making processes in the organisation.

Using Grounded Theory, a model of Participatory Soft Systems Methodology in action research emerged to help answer research question within the situated inquiry. The model takes a learning approach, as organisations shift and change in response to external changes that continuously occur in the surrounding "Global Village". Hence, the model provides an interpretative framework, and uses better communication practices and behaviors as co-researchers work together through reflection and dialogue to participate in discourse analysis with the aim of undertaking purposeful action for change within the situated inquiry.

Participatory Soft Systems Methodology is an interpretive methodological framework that emerged as a result of researching communication behaviors and practices within the workplace, in the context of implementing information systems module projects within the public sector higher education institution. The model focuses on using effective communicative behaviors and practices to jump-start the progressive learning process within the organisation and in turn slowly shift the organisation's culture from a Mechanistic organisation to an Open Systems organisation to change the already established decision making mechanisms in the organisation.

The model has three overlapping phases, these are: (a) co-operative inquiry – established social construct through the eyes of participants; (b) reflection and discourse analysis; and (c) purposeful action, and is cyclic and generic in nature. Hence, the model is flexible to be

customised to various situated inquiries, is subject to falsification, and is aimed to aid in the continuous contribution of scholarly work in the information systems field of application.

Various methods were used throughout the phases of the model, such as unstructured, semistructured interviews, and recorded reflective sessions with co-researchers and selected participants. Interview allowed co-researchers and selected participants to share without constraints their opinions and views. Observations were also noted at meetings, interviews, and reflective sessions by the researcher.

Interviews, reflective sessions, and observations were then used to devise a change plan. This plan was discussed and collaboratively implemented to improve the organisation's performance in information systems module implementation projects, and to attempt to establish lessons learnt for the organisation. Established lessons learnt, as observed by the researcher at attending one SISC steering committee meeting, which lasted for one hour and forty five minutes (1.75 hours) at the termination of the third phase of the Progressive Learning Process Model, would be used as an input into the second cycle of the Progressive Learning Process Model.

The researcher attended one SISC steering committee meeting at the final phase of the model. Only one cycle of the Progressive Learning Process model was implemented during the researcher's work in the situated inquiry from, from the 4th April 2004 to the 7th July 2004.

The researcher then tested the validity of the model within the chosen situated inquiry, while maintaining reservations in relation to the model being perceived as offering an answer or a solution to research area. The model's aim is to offer an interpretive framework for researchers in the workplace.

In the first phase, co-operate inquiry, a description of organisational culture and social contexts, was established through document analysis of e-mail correspondences and exchanges, and communication of a cross section of staff of the organisation. Through the opinions and perceptions of staff, it was established that the organisation's culture is in line with the Mechanistic view. Many staff described the organisation's culture in ways that could be interpreted as a rational-legal, process culture (minimal feedback, highly bureaucratic). The existing culture appeared to have dehumanising effects on staff, which had a direct impact on the quality of the information systems module implementation project. It was also discussed that in order for the organisation to better adapt to change, and more specifically change related to the introduction and implementation of information systems and technologies in the organisation, it is better for the organisation to consider a shift from the conventional view to an open systems view.

Through the second phase of the inquiry, reflections and discourse analysis, it was established that the organisational culture interfered with effective decision-making processes in a number of ways. The project manager felt isolated in the workplace, and the organisation's top-down bureaucracy and low feedback culture delayed the progress of the project. Through initiating a dialogue between the researcher and co-researchers using a collaborative approach, co-researchers reached a decision for a purposeful action to deal with the pressing and main issue of concern for the project manager.

This resulted in jump-starting the progressive learning process amongst individuals in the organisation. However, there remains a need for the organisation to consider a shift from the conventional view to an open systems view in order for the organisation to be better equipped to deal with change associated with the introduction and implementation of information systems and technologies in the organisation.

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