ABSTRACT
Understanding and dealing with the sources of problems of practice requires learning at both the interpersonal and organisational levels. The means for learning is the ability to engage in conversations that lead to problem clarification and collaborative commitment to change. When these problems are complex and manifest as dilemmas (with tensions between meeting organisational and individual needs) and impact on the quality of learning and teaching, educational leaders who focus on resolution can indirectly affect conditions which have consequences for improving student achievement. This action research study uses the case of one school to examine the commitment to engagement in conversations that allow dilemmas to be resolved. Data were gathered to examine the motivation of teachers and leaders to learn and the barriers to be overcome. A training intervention prepared senior managers for dealing with dilemmas more productively. The next stage in the research process is the collection of deep data that could provide evidence of changed practice in problem-solving conversations. Methodologically, this study has entered an extremely challenging phase in relation to accessing the data required. The major challenge encountered by the researcher and the key participants is the difficulty associated with gathering sensitive evidence of change in conversational encounters that involve other colleagues. A solution in the form of extending participation in intervention training to all members of the school has been adopted so that subsequent practice change can be observed collaboratively.

Re-focusing Educational Leadership
In New Zealand, and around the world, there has been a resurgence of interest in the forms of leadership that are purported to directly or indirectly affect the quality of teaching and learning, and consequently have an effect upon the learning outcomes of students. A recent international report on improving school leadership (Pont, Nusche and Moorman, 2008) urges policy makers to redefine school leadership “through an understanding of the practices most likely to improve teaching and learning” (p. 9). White (2008) suggests that several factors have “prompted school leaders to focus more intently on the pedagogical domain” (p. 17). In the realm of research about educational leadership, the spotlight has been redirected from a focus on
school management per se to highlight the leadership of learning (Robinson, 2006).

Robinson (2007) suggests that a question that researchers should be asking is, “what it is that leaders do” (p.5). Because much of what leaders do is mediated with teachers (Hallinger & Heck, 1998; Southworth, 2002, 2004), a significant foci for the work of principals should be the teacher. This is a view expressed by Starratt who says, “I believe that the core work of school leaders must be involved with teachers in seeking to promote quality learning for all children, and that all management tasks serve this core work” (2003, p. 11).

Finding out what it is that educational leaders do that has a positive impact on teaching and learning is proposed as the key purpose of research into effective educational leadership. Once researchers are able to isolate the critical practices that leaders should engage in, this knowledge will be of use in designing professional development programmes for principals. It should also inform policy makers and the agencies that resource schools about the support that should be provided in the form of administrative assistance and additional staffing for example, so that principals can refocus their energies and impact on what counts. It has been established clearly (Hallinger & Heck, 1998; Robinson, 2006, 2007; Southworth, 2002, 2004) that the principal’s direct influence on teaching and learning is minimal except in very small schools. Overall, it has been established that principals influence student learning outcomes indirectly by influencing the conditions that directly impact on the quality of teaching and learning. A critical indirect action that principals can engage in is paving the way for learning in the organisation that includes those most closely involved in the teaching and learning of students. As leaders of learning, educational leaders must be capable of engaging in personal and interpersonal learning which are the foundation stones of organisational learning.

The literature on organisational psychology and sociology has contributed a body of knowledge about learning in organisations that leaders can turn to in order to make necessary changes that can, in turn, create the results that leaders desire. In short, one of the critical conditions that can be influenced by educational leaders is the organisational learning culture that impacts on the way problems of practice are understood and solved.

Organisational Learning
In an organisational learning approach effectiveness is viewed as the ability to find out what is wrong when problems persist, and to learn from mistakes in order that long-term, recurring problems can be solved. It is also necessary to learn about what might be limiting or constraining the discovery of errors. It becomes possible to infer the organisation’s theory-in-use from observation of how the organisation behaves: its decisions and actions. Whilst organisational action is different from individual action it is conceptually connected to it.
Organizational learning occurs when members of the organisation act as learning agents for the organisation, responding to changes in the internal and external environments of the organization by detecting and correcting errors in organizational theory-in-use, and embedding the results of their inquiry in private images and shared maps of organization. (Argyris & Schön, 1978, p. 29).

Thus, for the learning to move beyond the individual level and become organisational, the results have to be held in the memories embedded in the organisation’s environment. When an organisation learns it is able to change its theory-in-use: a particular organisational behaviour based on the values, beliefs and assumptions that guide action.

The notion of an organisation engaging in learning has been traced to Fredrick Taylor’s introduction of repetitive tasks to improve productivity in the early 1900s (Chan & Scott-Ladd, 2004). Furthermore, we can trace theories about error identification and elimination in the insights provided by Popper (1957) who believed we must recognise that error is always possible and provides a basis for learning. However, organisational learning as ‘organisational inquiry’ that requires both single and double-loop learning involving examination of the organisation’s and individuals’ theories-of-action is the pioneering and unique contribution of Argyris and Schön. It is research based and demonstrates theorising in a way that is highly practical.

According to Argyris & Schön (1978), organisational learning involves the detection and correction of error. They distinguish between two types of organisational learning in this way. When error is detected and corrected in such a way that allows the organisation to continue with its present policies or objectives it is a process of single-loop learning. In other words, the learning is limited to an adjustment of action – just as a thermostat responds to temperature information and corrects heating or cooling requirements. When the error detection and correction involves modification of an organisation’s underlying norms, policies and objectives – then double-loop learning occurs. Argyris and Schön (1996) suggest that these types of learning occur at both the individual and organisational levels.

**Theory of action approach**

In order to understand the demands of double-loop learning (which is needed for organisational inquiry to occur) Argyris and Schön (1978, 1996) adopted what they call a ‘theory of action’ perspective or approach – to enable collaborative inquiry amongst people in organisations. What these authors have considered is that organisations may have theories of action in the same way that individuals have theories of action that inform their actions. Theories of action determine human behaviour because these are the fundamental beliefs we hold and actions we take in order to effectively solve a problem. They are described by Dick and Dalmau (1999) as “mechanisms by which we link our thoughts with our actions” (p. 10). They are also defined as “bundles of beliefs and values which guide our behaviour” (Cardno, 1998, p. 2). Argyris (1977) explains that theories of action have several elements: values that govern our action, action strategies we choose to implement,
consequences for ourselves and for others, consequences for learning, and finally the degree of effectiveness.

These theories take two forms. Firstly, an espoused form, which we state and which is what is usually provided when asked how one would behave under certain circumstances. Argyris and Schöen (1978) call this espoused form the “theory of action to which he gives allegiance and which, upon request, he communicates to others. However, the theory that actually governs his actions is his theory-in-use” (p. 11). Secondly, this theory-in-use form of one’s theory of action is demonstrated in actual practice. A person’s theory-in-use may or may not be compatible with what they espouse and the person may or may not be aware of the incompatibility between these two forms of their theory of action. A simple example of this, in organisational terms is that a school’s espoused theories could be indicated in promotional material distributed to prospective parents, on a website, in a Prospectus, in organisational charts and in policy statements. The actions taken by individuals on behalf of the school would demonstrate theory-in-use and if these actions are not compatible with public espousals there could be negative consequences or error that the school should detect and correct – thus requiring processes for organisational learning to be utilised.

It is important to note that whilst many researchers and practitioners in the field of educational administration, management and leadership are inspired and excited by the concept of organisational learning, they may have little realisation of the initial and on-going learning challenges that are presented in a theory of action approach where the learning resources are provided in the shape of knowledge about defensive and productive theories of action and the type of learning associated with these. The ultimate goal of organisational learning is to surface and deal with the problems that stand in the way of achieving goals. If a school aspires to achieving excellent learning outcomes for students and the practices of teaching are not conducive to this aspiration, then those practices are problematic and should become the subject of conversations between leaders and teachers that result in learning for both individuals and the organisation. Problematic practice is often the subject of conversations in the context of performance appraisal and when these problems are complex and involve value-tensions, they manifest as dilemmas: a type of problem that is extremely challenging.

**Dilemmas**

The greatest barrier to holding productive conversations is avoidance of a conversation which is likely to be contentious. When these conversations are needed in situations that are ambiguous, threatening or hold a great deal of complexity in terms of goal and value tensions then leaders are conditioned to employ a defensive theory-in-use. These features characterise a particularly fraught type of problem that Cardno (1999, 2007) refers to as a leadership dilemma. In these complex problems there is a tension between meeting the needs of the organisation and meeting the needs of the individual whilst preserving positive relationships. The sort of problems that leaders encounter in efforts to improve teaching and learning often carry such tension. For example, when a leader receives complaints from other teachers or parents
about the experiences of students that have not met the standards expected by the school and at the same time, the leader is aware that the teacher being complained about is under inordinate stress because of personal circumstances, a leadership dilemma is evident.

To deal productively with such problems a leader has to be capable of recognising the dilemma and their own defensive behaviour which according to Argyris and Schön (1974) is programmed to suppress conflict and guided by values of wishing to win, wishing to protect others and oneself. These values are not conducive to surfacing the underlying sources of problems or the ‘deep learning’ that characterises a productive conversation. Learning the skills that help one to confront a dilemma and attempt resolution by engaging in a productive conversation requires a different set of values to be adopted. These values in action allow information to be generated bilaterally with the aim of achieving joint solutions and long-term commitment to change that can be monitored. In essence, the programme that guides such values focuses on the possibility that conflict can be surfaced and dealt with in a way that leads to a long-term solution.

When productive values of achieving high advocacy and high inquiry levels in conversations about practice are acted upon, and people experience the beneficial consequences, these practices become the ‘way to do things around here’ and are embedded in a school’s culture. In turn, culture contributes to climatic conditions that prevail and support a leadership focus on solving critical problems of practice.

**The Study**

An action research approach (Cardno, 2003; Cardno & Reynolds, in press) was used in the case of one primary school to meet the following research objectives:

1) To determine the motivation and expectations of leaders and teachers regarding the imperative to deal with complex problems of practice;
2) To investigate the incidence of leadership dilemmas and the way the leadership team addressed these;
3) To intervene in order to strengthen the dilemma management capability of leaders and teachers;
4) To examine the extent to which changed practice impacted on problem-solving effectiveness, and the building of an organisational learning culture with implications for improved student achievement.

This paper reports the findings of the first phase of action research (reconnaissance of the status quo) and the partially completed second phase of intervening to alter the status quo. A third phase of research will subsequently be undertaken to evaluate the effectiveness of the intervention activities in relation to changes in the way these school leaders deal with dilemmas and create an organisational learning culture in the school.

The urban primary school in this study has a team of three senior managers, the principal, a deputy principal and an associate principal. Middle-level
leaders (three) lead junior, middle and senior school syndicates with up to six teachers in each syndicate or learning level team. Data were collected from the whole staff (n=20) using an open-ended questionnaire to gauge what the teachers believed was expected of leaders of learning at all levels in relation to the resolution of problems of practice that impacted on the quality of teaching and student learning. The recording of senior management team meetings and interactions provided data about the problems that these leaders perceived as especially challenging. Their journal accounts of actions and reflections related to the problems, and recording their discussion of problem-solving attempts also provided data.

A limitation related to data collection arose at the point where senior manager interactions with syndicate leaders and teachers meant that these practitioners needed to be willing to contribute data. At this stage, six months into the project, the senior managers were not confident to approach others to participate in conversations that would be recorded. Hence this stage of the study is pending. Further intervention will be needed to counter the barriers (confidence, trust, sensitivity, confidentiality, ethical challenges) that have been encountered in attempts to drill down to a second level. Drilling deeply has thus far been restricted to an examination of the practices of the three school leaders who have been willing to open up their thinking and action to the scrutiny of themselves, their colleagues and the researcher. Assisting these courageous subjects to draw others into the learning arena is a continuing challenge in research of this kind.

Findings of the Reconnaissance Phase
All the teachers in this primary school completed an open ended questionnaire at a staff meeting that was dedicated to completing this task. At a previous meeting the researcher and the principal had outlined the project and gained the agreement of staff to participate in this way. The hope was expressed that teachers who were interested would consider an invitation to participate in greater depth as the project progressed, but that initially, the focus of the action research intervention would be the three senior managers.

The questionnaire findings confirmed that problems of practice were clearly evident and important to teachers and that they had an expectation that such problems would be addressed. The nature of such problems were described as follows:

Some issues are about pedagogical decisions – conflicting ideas about teaching or learning or what is important.
A difficulty has arisen around changing what I am doing now.
Issues arise when the leaders’ goals are not in common, when one leader acts without consulting the others.
There are conflicts around budgets / priorities. And then there are always the personality clashes.
Misunderstandings arise because of lack of communication.

Respondents referred to their awareness that problems were avoided by leaders and suggested several reasons. These included trying to avoid
disharmony – wanting to keep the peace; lack of confidence; lack of trust; just wanting to maintain a happy atmosphere; allowing tasks to side-track them from the main issue; and minimizing challenges to ‘make things work’. In one case, the teacher saw the leaders as:

_Not wanting to deal with difficult people or people not open to the ideas of the leader._

There was also comment about problems being avoided by teachers. As one respondent states:

_Sometimes there seems to be a lack of time to speak; to follow up on issues staff have during the day and this often needs to be done immediately. Management can sometimes be seen as slightly different from us. Not to be confided in if there are problems – people afraid of showing they can’t cope._

_It takes two to tango! Relationship issues could be detrimental to the willingness of one party._

_Some people find leaders unapproachable and so real issues will not be addressed._

Daunting expectations were held of leaders by teachers. These have been analysed to isolate the activities and qualities identified in relation to direct (hands-on activity) and indirect (creating conditions) forms of educational leadership. Table 1 overleaf displays a summary of these data.

A theme that runs through the respondent’s views about a good educational leader is that of ‘building a quality environment’. One respondent states:

_Enhancing staff relationships and work conditions helps promote quality learning as does providing a quality environment for children to learn in._

This theme of indirect educational leadership has been expressed in several ways – every time reinforcing the expectation that leaders need to create the environmental conditions that foster the following:

- Leaders and teachers working together – common goals;
- Leaders dealing with issues (discussing them rather than avoiding them);
- Creating a safe, encouraging environment for teachers and children to learn in.

As one teacher expressed, the creation of this environment is the central purpose of management:

_Some management tasks may not, at first glance, appear to be directly related to children’s learning. They may have a couple of steps between them and children’s learning; often I think they are to do with keeping the atmosphere of the school productive._

Ideally, another respondent sums up the expectation in the following terms:

_When leaders model open communication, encourage open dialogue, involve themselves in the daily life of classes, challenges are few. Teachers feel ‘safe’, this environment is non-threatening and so they_
are more prepared to try new things, take risks and as a result the school’s learning environment grows.

Table 1
*Educational Leadership Activities and Qualities (direct and indirect)*

<table>
<thead>
<tr>
<th>ACTIVITIES</th>
<th>QUALITIES</th>
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<tbody>
<tr>
<td><strong>Direct (hands-on activity)</strong></td>
<td>They should be:</td>
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<tr>
<td>They should:</td>
<td>Good communicators</td>
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<tr>
<td>Take and give advice</td>
<td>Good listeners</td>
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<tr>
<td>Lead by example</td>
<td>Good role models</td>
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<td>Find and share knowledge</td>
<td>Motivators</td>
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<tr>
<td>Show they are up to date</td>
<td>Knowledgeable</td>
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<tr>
<td>Demonstrate knowledge</td>
<td>Respectful</td>
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<tr>
<td>Demonstrate excellent practice</td>
<td>Genuine</td>
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<tr>
<td>Get out and about with students</td>
<td>Sincere</td>
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<tr>
<td>Get to classrooms not shut up in offices</td>
<td>Fair</td>
</tr>
<tr>
<td>Do classroom observation of teachers</td>
<td>Approachable</td>
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<tr>
<td>Give observation feedback</td>
<td>Confident</td>
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<tr>
<td>Provide professional reading material</td>
<td>Encouraging</td>
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<tr>
<td>Guide and direct in order to make changes in pupils or colleagues’ behaviour or knowledge</td>
<td>Co-operative</td>
</tr>
<tr>
<td>Find time to teach and mentor</td>
<td>Well organised</td>
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<tr>
<td>Find knowledge and resources</td>
<td>Reliable</td>
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<td></td>
<td>Open-minded</td>
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<tr>
<td></td>
<td>Enthusiastic about learning</td>
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<tr>
<td></td>
<td>and about children</td>
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<tr>
<td><strong>Indirect (creating conditions)</strong></td>
<td>Positive</td>
</tr>
<tr>
<td>They should:</td>
<td>Empathetic</td>
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<tr>
<td>Create an environment that benefits and improves the learning</td>
<td></td>
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<tr>
<td>Set high standards</td>
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<tr>
<td>Have high expectations</td>
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<tr>
<td>Protect learning time</td>
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<tr>
<td>Have the school very well organised</td>
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<tr>
<td>Have sound professional content knowledge</td>
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<tr>
<td>Facilitate others’ learning</td>
<td></td>
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<tr>
<td>Support others in their development of skills</td>
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<tr>
<td>Delegate leadership jobs throughout the school</td>
<td></td>
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<tr>
<td>Be responsible for planning and outcomes</td>
<td></td>
</tr>
<tr>
<td>Enhance staff relationships</td>
<td></td>
</tr>
</tbody>
</table>

But a salutary note is presented here to underline the importance of productive relationships.

*If the teacher has no respect for their leader they are not receptive or likely to take on board new ideas to improve the quality of learning.*
So, in summary, creating the environmental conditions (or organisational climate) that can enhance teaching and learning is of significance to teachers when they consider what they expect of an effective educational leader. A factor in this condition is the willingness and ability of the leader to deal with difficult issues that are related to problems of practice and involve interactions with people. One reason why these issues may be avoided is that they are discomforting but not clearly recognised as dilemmas.

**Intervention – Training to Manage Dilemmas**
The senior management team participated in a one-day training event in September 2008 which introduced them to the theory of practice of managing dilemmas through productive conversations (Cardno, 2007; Cardno & Reynolds, in press). The aim of the intervention was to prepare the participants to adopt a productive theory of action in the way they approached problem-solving and engaged in conversations with their colleagues whenever an opportunity arose for this.

**In search of dilemmas**
The three senior managers who participated in this study all strongly agreed that they had experienced and were involved in problems that matched the description of a leadership dilemma (Cardno, 2007).

Because this dilemma manifests as tension between attending to an organisational horn (achieving what is best for the school) and an individual horn (keeping relationships positive) it challenges the leader at the very outset because of an inherent assumption that both horns can not be simultaneously dealt with. The first step in managing a dilemma is to recognise it and articulate as such. The exercise of dilemma mapping (Cardno, 1998, 2001) was engaged in to produce an outline of the dilemma during a training event (See Table 2).

Table 2:
*Dilemma Map*

**Organisational concerns:**
One of the syndicate leaders has a personal pedagogical stance about the teaching of handwriting which is conflicting with other learning goals that have been set collaboratively for the whole school. Her determination is confusing her team members and undermining a leadership decision. So, her team is unhappy and the senior managers feel that she is paying lip-service to a commitment.

**Relationship concerns:**
This person is an outstanding teacher but is prone to emotional outbursts. The principal has built a good (but fragile) relationship with her and is now afraid of confronting her about this issue as it may damage the relationship.
**Consequences:**
Because she wants to preserve the relationship, the principal is bypassing the issue. The school decision about the priority to be given to handwriting is not being attended to but the principal is uncertain of the actual practices of the team although she has been aware of resentment building up on the part of other syndicate teams.

All three senior managers are keeping journals in which they are recording problems as they arise. They are attempting to record complexity, when this is evident, in the form of a dilemma map. They are also using regular, weekly meetings to share this reflection with one another and consider how what they have learnt of the theory of action approach to managing dilemmas might be employed in attempts to have a productive conversation with a colleague.

**Challenges in Evaluating Post-Training Practice**
Collecting data during conversational events is no easy matter, especially when the researcher’s presence has an artificial influence on the data. The form of observation and data recording required to gather these data presents several practical and ethical challenges.

In relation to employing observation techniques there is the critical issue of the relationship between the observed and the observer. The researcher cannot be a participant observer as this would have a negative influence on the data. In school settings it would not be practical to conduct such observations as a complete observer (Merriam, 1998) hidden, for example behind a one-way mirror – even if the participants agreed to this. What is far more appropriate is an observation stance which is collaborative and is related to studies in educational research and action research. Here the investigator’s identity and purpose is known to everyone involved and their informed consent to participate is sought.

Whist the subject of the observation is the person responsible for initiating a productive conversation – the other(s) in the conversation are also being observed – therefore, it will be necessary to place them on an equal footing with the senior managers in this study in terms of their knowledge and skills as a participant in the conversation. Hence, the next step in the research process is to extend the intervention training to all the teachers in the school to achieve two things. Firstly, to increase awareness of the reasons why the principal has agreed to become involved in the study: as a means for the senior managers to learn, and for the organisation to learn with a view to addressing critical problems that impact on learning and teaching. Secondly, to place all who agree to participate in productive conversations that are observed and recorded to enter into this activity on an equal footing in terms of knowledge of the theory and practice of dilemma management.
Without such further intervention, the key participants (the three senior managers) could continue to struggle to negotiate agreement individually with colleagues to record their attempts at having productive conversations.

**Conclusion**

I have taken on a considerable methodological challenge in this study that has created new learning opportunities and guided me towards extending participation to all teachers in the school as an essential ethical decision and one that might also address the practical concern of access to sensitive data. I am also excited by this opportunity to apply findings from previous studies (Cardno, 2007; Cardno & Reynolds, in press) which have pointed to the need to create organisational learning cultures. This cannot happen unless all staff in the organisation are provided with dilemma management training in schools that are dedicated to building a culture of dilemma management rather than dilemma avoidance. Participants in these previous studies (in early childhood and school settings) have signalled how important it is that the knowledge and skills related to productive conversations are widely shared and practiced. This sort of major intervention, that is progressively offered to every member of the organisation might help change the conversational climate and enable effective educational leadership and change.

**References**


