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**HEADTEACHERS AS LEADERS OF CHANGE
IN PRIMARY SCHOOLS IN CYPRUS**

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HEADTEACHERS AS LEADERS OF CHANGE IN PRIMARY SCHOOLS IN CYPRUS

ABSTRACT

This study investigates how primary school headteachers of Cyprus lead a particular change, namely ICT implementation. Specifically it investigates the leadership styles headteachers use when leading the particular change, focusing on the possession of attributes of transformational, transactional and passive leadership. In addition, it seeks relationships between headteachers' leadership styles and particular variables such as headteachers' beliefs about this change, headteachers' educational background and headteachers' training in leadership and management. Moreover, it explores teachers' perceptions of their headteachers' leadership styles and how these affect teachers' beliefs about the particular change. It finally examines headteachers' perceptions about their training for headship and for leading change attempting to identify deficiencies and needs they have when leading change.

In order to investigate the research topic and address the research questions a survey, along with interviews and document collection, were conducted. Instrumentation included questionnaires distributed to headteachers and teachers, interviews conducted with them and document analysis which included minutes of staff meetings. The questionnaire sample consisted of 95 primary schools, giving 95 headteachers and 475 teachers (5 teachers from each school). Responses were received from 42 headteachers and 207 teachers. Five headteachers from the respondents who gave consent were selected and interviews were conducted with them and with three teachers from each school. Also minutes of staff meetings from the same schools were collected for analysis.

Findings reveal that headteachers of this study report using more transformational leadership styles than transactional or passive ones however possessing higher levels of some aspects of transformational leadership and lower levels of others. It was found that while headteachers are concerned with their teachers' personal, professional and intellectual needs they have difficulties in addressing these needs by providing intellectual stimulation and modeling behaviour on how to implement ICT more effectively. They also report dissatisfaction with their training for headship as well as for leading change and define a number of needs that would enable them to carry out their role more efficiently and effectively and possibly use higher levels of transformational leadership practices. These needs reveal that headteachers expect from the Ministry of Education and Culture to act more as a transformational leader. Teachers were found to agree with headteachers' responses in most of the issues, however with some difference in the mean of each variable. This could imply that teachers have higher expectations from their headteachers and need them to act even more as transformational leaders. In addition, headteachers' beliefs about change were found to affect all dimensions of transformational leadership, whereas no correlation was found between beliefs and transactional leadership. Correlation was also found to exist between all dimensions of transformational leadership, as well as contingent reward, and teachers' beliefs about change. Finally, no relationship was found between headteachers' educational background as well as knowledge in leadership and management with their leadership styles, other than that of educational background with vision and modelling behaviour.

CHAPTER 1: INTRODUCTION

BACKGROUND TO THE STUDY

For the last three decades, leadership has been a key concept in work concerned with developing policy and practice in educational systems and organizations (Bennett et al., 2003). In fact, educational researchers in their attempt to discover the factors that can improve school effectiveness, have revealed that leadership is one of the major factors that can determine whether an educational organization will succeed or fail (Teddlie and Reynolds, 2000; Bush, 2003; Simkins, 2005). School leadership is accepted as centrally important for school success (Bell et al., 2003). More specifically research reveals that excellent leadership contributes a great deal to high performing schools (Bush and Jackson, 2002). It would thus be reasonable that the focus of a wide range of research would be to investigate the actual leadership practices that contribute significantly to excellent organizational conditions and outcomes (e.g. Hallinger and Heck, 1996).

Conceptualizing leadership in terms of the perceptions of the people who experience it has been the focus of many approaches which, through research, aim to measure leadership (Jantzi et al., 1996). As long ago as 1984, Hallinger (1984) was widely researching instructional leadership. Subsequently, Bass (1985) assessed transformational leadership, as well as transactional leadership, through quantitative research conducted with the use of a questionnaire. More recently, Leithwood and his colleagues (Leithwood, 1992; Leithwood, 1994; Leithwood et al., 1994) have researched transformational leadership and how this can facilitate change implementation. However, despite the extensive research on transformational leadership, on the positive effects this leadership style might have on followers' behaviour during change implementation, very little research has been conducted to examine transformational leadership in the context of organizational change

(Wanous et al, 2000). In addition, the most notable thing about the studies conducted is the fact that findings about the aforementioned leadership practices are based on the perceptions of the followers about their leaders (in the case of education the perceptions of teachers about their headteachers). It would therefore be interesting to investigate the perceptions of leaders themselves about their style of leadership, especially within an environment of change, an aspect which this study will attempt to investigate.

Transformational leadership has been found by many researchers to be an effective leadership style that plays an important role in school effectiveness. In fact, some scholars have even claimed that transformational leadership is a universal style of leadership that works everywhere (e.g. Bass, 1997). However, evidence that might support this claim is mostly based on research that was, until recently, conducted in non-educational contexts (Yu et al., 2002). More recently, Leithwood and his colleagues, as well as other researchers influenced by their work, have conducted a number of studies investigating the perceived effectiveness of transformational leadership (e.g. Yu et al., 2002; Leithwood et al., 2002). Other scholars, mostly based on Bass's work, have investigated both transformational and transactional leadership effects on several aspects that might contribute to school effectiveness such as teachers' job satisfaction, their organizational commitment or their commitment to change (e.g. Nguni et al., 2006). A number of these studies have revealed that effective leadership is both transformational and transactional (e.g. Bass, 1985; Judge and Piccolo, 2004; O'Shea et al., 2009) whereas others found that transformational leadership produces higher levels of followers' satisfaction (e.g. Ruggieri, 2009). Yet, all of these scholars in their papers call for further research to investigate the effects of transformational and/or transactional leadership to aspects, attributes or practices that can lead to improved school effectiveness. This study will attempt to provide such evidence.

THE CONTEXT IN CYPRUS

An insight into the structure and governance of the educational system in Cyprus as well as the role of primary school headteachers is important so as to understand the context within which this study takes place. Prior to discussing this it is important to mention that all information provided refers to the Greek-Cypriot schools of Cyprus.

The educational system in Cyprus is centralized with the highest authority for educational policy-making being the Ministry of Education and Culture (MOEC). The MOEC is responsible for the administration of education, the enforcement of education laws and the preparation of budgets and bills relating to education. Decision making follows a top down structure with the person holding the highest position being the Minister of Education and Culture who is also the president of the Pedagogical Council, set up by the Council of Ministers in 2005 to initiate the restructuring of the whole educational system in Cyprus. Below the Minister of Education and Culture is the Directorate of Primary Education who is assisted by a number of Chief Education Officers one of them being the Inspector General of Primary Education. Below these are the District Inspectors (or Education Officers) placed at each District Education Office and then the School Inspectors who are responsible for a number of schools within their district. The headteachers, deputy heads and teachers are accountable firstly to their School Inspector and then to all the aforementioned officers.

Another important body of the Cyprus Educational System is the Education Service Commission which is an independent office and does not come under the MOEC. It consists of five members appointed by the Council of Ministers and its role is not much about forming or implementing educational policy but to appoint, confirm, promote,

transfer, second and retire all members of education staff (teachers, deputy heads, headteachers, inspectors etc).

Moving to the role of the primary school headteacher, it is firstly important to discuss the conditions for promotion to the position of the headteacher, something that also justifies why the variable of headteachers' education and training has been chosen for investigation. The position of primary school headteacher can only be claimed by teachers who have completed sixteen years of experience, of which three have to be in the position of a deputy headteacher (Georgiou, 1994). However, the reality is that most of the teachers/deputy heads are promoted much later since the positions for headteachers are very limited and one of the criteria for being promoted is age. Only a few young teachers have had and will have the opportunity to become headteachers because older ones predominate. This situation has tended to change in more recent years, since younger teachers started obtaining qualifications such as Masters or Doctorates which enable them to be appointed to the position of the headteacher much earlier (having a Masters degree is equal to having 3 additional years of experience whereas a PhD or EdD is equal to having 5 additional years of experience). Moreover, existing training and education in the field of educational management and leadership are not prerequisites for promotion to headteacher (Georgiou, 1994). However, the question is: are all teachers capable of becoming leaders, and more importantly effective ones, without any education or training in the relative field?

The role of the primary school headteacher is multidimensional. According to Georgiou (1994), amongst other tasks, primary headteachers:

- are responsible for the efficient and effective management of the school, for monitoring, evaluating and improving whatever takes place within the school organization;

- are responsible for coordinating, monitoring and supporting the school staff;
- have teaching responsibilities according to the school's timetable.

The “good thing” about the Cypriot educational system is the fact that all headteachers have to pass through the role of teacher before being promoted. Therefore they have sufficient knowledge about learning and teaching and consequently, a strong background in the field they are leading. This, according to Busher and Barker (2003) is considered to be an important element for leaders in order to be able to guide their colleagues to bring about change successfully. The fact that headteachers also have teaching responsibilities can be added to the above since they have the opportunity to be true role models for their teachers by showing examples of good teaching practice. However it is also considered a drawback since teaching responsibilities do not leave headteachers with much time to deal with other important aspects of their role.

EDUCATIONAL REFORM IN CYPRUS

Cyprus, as a new member of the European Union, faces radical changes affecting all aspects of human life, including education. In fact, the debate on educational reform is high on the agenda in Cyprus. In 2004 the President of the Republic of Cyprus initiated a debate on educational reform in an effort to re-shape the structure and goals of education (Committee for Educational Reform, 2004). A number of reforms for all educational levels were suggested (for a full list see appendix 8) some of which are currently being undertaken whereas others are still pending. Most of the reforms, with the exception of the review of the National Curriculum, are long term ones with no particular deadline set for their implementation. In addition, all of them have been decided by the government. However, with some of these reforms schools have the flexibility to decide on how to

implement them whereas with others (e.g. the review of the National Curriculum) the implementation process is fixed and decided by the government.

Below there is discussion of the most important, referring to primary education, educational reforms suggested by the government of Cyprus which include ICT implementation.

Amongst the reforms envisaged by the government of Cyprus and the Ministry of Education and Culture is the development in Cyprus of a system for internal evaluation of the performance of each school and the education provided within it. This evaluation system should include, along with other suggestions, the development of an Analyzed Guide for assessment of teaching procedures at school level and programming of the education to be given, means for promoting the above (case studies, diagrams, assessment sheets, etc) and training for teachers. The inclusion of pupils with special needs into mainstream education is a matter of major policy for the Ministry of Education and Culture. In addition, there is a review of the National Curriculum; the new version will give teachers all the information and guidance required about teaching and the goals to be achieved by the pupils are suggested. It is also proposed that an assessment procedure should be developed that will evaluate the results of teaching and the pupils' progress in all basic subjects. Moreover, it is suggested that new books should be written in Cyprus for all lessons since the books used by the pupils are sent from Greece. Finally, the establishment of compulsory all-day primary education is considered to be one of the most important innovations suggested and currently being implemented (Committee for Educational Reform, 2004).

These suggestions for educational reform in Cyprus are only indicative of the large agenda for educational reform actions that should take place. Further discussion of the

aforementioned reforms along with other important suggestions can be explored in the Cyprus National Dossier (Ministry of Education and Culture-MOEC, 2010). Below, there is an extensive discussion of one of the most important innovations suggested by the Ministry of Education and Culture and currently being implemented, namely Information and Communication Technology (ICT) implementation.

ICT implementation

As long ago as 1993 the Directorate of Primary Education initiated a programme to enhance the provision of ICT in the primary sector. According to this programme, one computer and one printer should be included in each classroom (MOEC, 2010). However, the particular initiative was not put into actual practice until 2002. Until then, ICT was a neglected issue in schools. Computers existed only in some classrooms and only a few teachers made use of them efficiently, effectively and for meaningful educational purposes. It is important to note that ICT is not taught as a separate school subject but is used “as a dynamic tool in the teaching and learning process, aiming at a more effective implementation of the curriculum as well as the promotion of basic computer skills” (MOEC, 2010, p. 75). There were teachers that didn’t even know how to use ICT, not to mention their educational use. Since 2002 the Ministry of Education and Culture has adopted a programme entitled “The integration of ICT” (MOEC, 2010, p. 75). The aim of this programme was not only to intensively introduce ICT in classrooms, such as computers and other technology like interactive boards but also to train teachers in how to make effective use of them for educational purposes. MOEC’s expectations were not only teachers to use the computer in their teaching as a demonstration tool but also pupils to be able and provided with opportunities to use computers for their tasks. The initiative started

step by step, firstly by putting at least one computer in all classrooms. Then, starting from 2004, all teachers were obligated to attend at least 75 teaching periods of training courses the content of which was how to use different computer programmes for educational purposes. These were organized by the Ministry of Education and Culture and were conducted during teachers' free time. Later, interactive boards were introduced in a number of schools on a pilot basis. Practical ideas on particular lesson plans where ICT could be used were also prepared and provided to each school for the teachers to use. In addition, in 2008 the Ministry of Education and Culture initiated a project namely DIAS (DIAdrastiko Sholeio which in English is translated into Interactive School) which aims at promoting ICT in all schools. This is currently tested on a pilot basis and is planned to expand to all schools by 2014. The information cited above reveal that ICT implementation is a long term initiative, implemented step by step. Compared to other initiatives such as the implementation of the new National Curriculum, it would not be considered as an intensive one. However, the Ministry is concerned about how the particular initiative is progressing and this is shown by the fact that there are a number of people appointed to coordinate and monitor the implementation. Guidelines for the initiative were provided to the headteachers at the beginning of the initiative and are improved every year with new issues. At the time that this thesis is written (2010-2011) the Ministry of Education still pays great attention to ICT implementation and reinforces this attempt with as many means as possible, such as putting more computers in classrooms, organizing training events for teachers and clearly promoting the use of ICT in the classroom during staff meetings. Inspectors, who are representatives of the Ministry of Education and Culture, when they visited schools at the beginning of the school year (2010-2011), highlighted the importance of using ICT in the classroom as this makes the lesson more interesting and attractive and teaching aims are achieved more effectively. Headteachers however feel free and flexible to implement the particular initiative in whatever way they perceive as most effective. As a

contrast to other kinds of initiatives (e.g the revision of the National Curriculum) where the Ministry is very strict about the way and the time allowed for implementation, ICT implementation is a long term external initiative, since it was suggested by the government in 2002 and still goes on, but schools have the flexibility to decide on its implementation. There is no set deadline by which the particular initiative is supposed to end. This study investigates headteachers' ways of leading this particular implementation.

RESEARCH IN CYPRUS

Moving to research regarding educational leadership in Cyprus, this has, from personal experience and literature searching, proved to be lacking. More specifically, as far as the author is concerned, after extensive studying of the existing literature and research papers, no other study has been found to examine the leadership styles that primary school headteachers of Cyprus adopt when leading change, and more particularly the levels of use of dimensions of transformational, transactional and passive leadership. Similarly, no studies were found that examine the relationship between headteachers' leadership styles during change implementation with their education-training as well as their attitudes when leading change. Finally, it has been realized that no studies that investigate teachers' perceptions of their headteachers' leadership style, particularly during change implementation, and how these styles might affect their beliefs and attitudes towards that particular change, exist. According to Horner (1997) changing demands on organisations require transformational leadership qualities. Therefore, the need for creative, innovative, transformational leader-change agents, in primary schools in Cyprus, appears to be vast. It is hence important to investigate whether the primary school headteachers of Cyprus possess such traits. It would also be important to be aware of factors which might affect the leadership styles, and also attitudes towards the implementation of change and their role as

change agents, of school leaders in Cyprus. More particularly, it would be important to know the perceptions that headteachers of primary schools of Cyprus have about their leadership styles during change implementation, as well as the perceptions that teachers have about their headteachers' leadership styles so as to compare the results. It would also be interesting to investigate whether these leadership styles are related with other variables such as headteachers and teachers' beliefs and attitudes about change. It would finally be important to research whether headteachers' training in education generally, as well as particularly on leadership and management, might affect their leadership styles. This study will attempt to provide such knowledge. The reason for choosing primary education is that the researcher is a primary school teacher, so the findings of the study are expected to provide evidence that will help the researcher clarify her notions about primary school leadership in Cyprus, and also improve her practice as a teacher now and, probably, as a school leader later.

RELEVANCE OF THE RESEARCH

According to Harber and Davies (2003, p. 132):

“a major problem with educational leadership literature is that of real contextuality since the published literature stems from, and is written about, the industrialized north of the planet. Educational organizations in developing countries and in unstable societies exist in very different contexts”.

Similarly, Hallinger and Heck (1999) point out that many scholars have noted that leaders operate differently in different contexts, and they additionally make clear the need for investigations of the nature of leadership across cultures to assume a central place in the research community. It is therefore important that research should be conducted in

countries with limited research experience and limited relevant literature on several aspects of leadership, since findings in different contexts may differ from those revealed so far by research.

Bearing in mind the above, this study is expected to enrich the theory of leadership styles and particularly transformational and transactional leadership and the role of the leader as a change agent, by examining variables that have not been examined yet in the Cypriot educational context. It will therefore improve understanding of educational leadership as an area of study and also as a field of practice. In addition, it will help the researcher use the knowledge derived from the research in order to improve personal future practice in leadership.

This study is also expected to enrich the body of existing literature on transformational and transactional leadership in educational contexts and particularly under changing circumstances. According to scholars that have investigated the aforementioned leadership styles research as such has proved to be lacking and further exploration of the two styles in educational and changing contexts is pointed out as necessary (Wanous et al., 2000, Yu et al., 2002, Nguni et al., 2006).

Furthermore, the findings of the study can be used by colleagues, school headteachers and other practitioners in the field in order to improve their knowledge and understanding of the subject, or improve their practice.

The urgency of this study is also related to the fact that the findings can reveal important evidence regarding leadership in the Cypriot educational context, which may prove useful to the government of Cyprus when drawing up educational policy.

Finally, this study is expected to provide an insight into primary school headteachers' behaviour and therefore reveal possible deficiencies or needs to the government of Cyprus, so as to be able to undertake necessary actions for improvement, such as developing specific programs for the professional development of leaders.

DEFINITION OF THE PROBLEM-RESEARCH QUESTIONS

This research attempts to investigate how primary school headteachers of Cyprus lead a particular change suggested by the government, identifying needs and deficiencies they might have. More particularly it attempts to obtain evidence from headteachers and teachers in order to identify headteachers' leadership styles when leading the ICT implementation, focusing on transformational, transactional and passive leadership. It also aims to define possible relationships between headteachers' educational background, particularly in leading and managing, and their ways of leading change; to identify possible relationships, between headteachers' attitudes towards the particular change and the leadership styles they adopt; it finally checks for relationships between teachers' perceptions of their headteachers' leadership style and their attitudes towards change.

More specifically, this study will attempt to address the following research questions:

R.Q.1: To what extent do primary school headteachers of Cyprus adopt transformational, transactional or passive leadership styles when implementing a particular change, namely ICT implementation?

R.Q.2: What are teachers' perceptions of their headteachers' leadership styles when leading change?

R.Q.3: How do teachers' perceptions of their headteachers' leadership style affect their attitudes towards change as well as their level of commitment to change?

R.Q.4: What are primary school headteachers' attitudes and feelings towards this particular kind of change?

R.Q.5: What is the relationship, if any, between headteachers' attitudes towards ICT implementation and the leadership styles (transactional transformational or passive) they adopt?

R.Q.6: What is the relationship, if any, between headteachers' educational background in general and educational background in leadership and management with their leadership styles and beliefs about change?

R.Q.7: What are the headteachers' perceptions about their training for headship and for leading change?

R.Q.8: What needs might headteachers have when leading change?

CHAPTER 2: THE LITERATURE REVIEW

This chapter will discuss the main theoretical frameworks related to the study and the variables involved (leadership styles, change, training). It firstly discusses the relationship between leadership and management and then analyses literature on leadership styles with particular attention to transformational and transactional leadership. It then refers to the relationship between leadership and effective change implementation before defining the requirements of leadership training.

LEADERSHIP AND MANAGEMENT

Scholars and researchers have debated and attempted to define the meanings attributed to the terms “management” and “leadership”. There is very limited agreement although there are some central ideas that do appear to be common.

Bennis and Nanus (1985) provide a rather simplistic definition of the difference between managers and leaders. They state that “Managers are people who do things right and leaders are people who do the right thing” (p.21). They appear to be referring here to the idea that good managers efficiently apply systems that are in place whereas leaders challenge the status quo to perhaps develop systems that effectively achieve what they, or others, believe is the right thing to be doing.

There does seem to be general agreement that management is about regular routine that keeps the organization operating smoothly. Southworth (1998) suggests that management is about planning, coordinating and organizing. Others have said that it implies direction and control (The Open University, 2008), orderly structures, maintaining day to day functions, ensuring that work gets done, monitoring outcomes, results and efficiency

(Whitaker, 1993). Cuban (1988, p. xx) sums up neatly by stating that managing is about “maintaining efficiently and effectively current organizational arrangements” and therefore assesses the overall function of management as being toward maintenance.

Before continuing to attempt to define leadership such that it can be differentiated from management it is important to understand that in practice the two are not easily separated (Leithwood, 1994). There is evidence that school leaders experience difficulty in balancing their roles between tasks intended to improve staff, student and school performance (higher-order tasks), related to their leadership role, routine maintenance of existing situations related to their management role and pure administrative duties (Dimmock, 1999). As well as being difficult to separate the two aspects in practice it is suggested that the leadership perspective of the role of principals does not eliminate their managerial role (Hallinger, 2003) and indeed both management and leadership should coexist in an organization in order for it to be effective (Southworth, 1998).

For Southworth (1998) leadership is about behaviour, action oriented and about improving what we do, dealing with organizational change, making progress and moving forward. Taking this view forward it is suggesting that leadership involves motivation and leaders deal with pursuing and convincing individuals to follow them, to respond positively to their circumstances and to overall policies (The Open University, 2008). This idea of motivating and influencing others is also emphasized by Burns (1978, p. 19) who describes leadership as “leaders inducing followers to act for certain goals that represent the values and the motivations - the wants and the needs, the aspirations and expectations - of both leaders and followers”. It therefore appears to be behaviour that offers direction and possibility but is also concerned with the needs of the individuals and teams who are striving to achieve the tasks and goals required in an organization. It is very people

focused. This point is further highlighted by Cuban (1988, p. xx) for whom leadership means “influencing others’ actions in achieving desirable ends”. He perceives leaders as people who form the goals, motivations and actions of others, able to initiate change to accomplish existing and new goals. Leadership is thus attributed with three main characteristics: influence, values and vision, qualities which will be extensively discussed later in this study.

So, it is suggested that leadership is behaviour that enables others to achieve goals and is concerned with personal and interpersonal behaviour, has a focus on the future, change and development, quality and effectiveness (Open University, 2008). This study will therefore focus on the role of primary school headteachers as leaders rather than managers, because it aims to provide evidence on the role of the headteachers as change agents and the relationship between change and leadership.

LEADERSHIP STYLES

Leadership, as already mentioned above is about behaviour, is action oriented and about improving what we do, dealing with organizational change, making progress and moving forward (Southworth, 1998). A definition suggesting that the leader is the one who succeeds in convincing the others to follow him/her, has been supported by many scholars of the field (e.g. Southworth, 1998). In their attempt to perform their role effectively, leaders might use different ways of leading. (Whitaker, 1993; Southworth, 1998; Leithwood et al., 1999). The attributes, behaviours, methods and processes used by leaders are defined by the literature as leadership styles, leadership theories, or leadership models. This study will use the term leadership styles. Researchers and scholars of the field have attempted to identify the attributes and behaviours used by leaders when leading people and organizations and have given them different names. Leadership styles can be based on

the extent to which leaders share responsibility, on the way leaders relate to and are able to motivate and inspire people, or on the ways leaders obtain commitment. Researchers have also attempted to prove that some leadership styles are more effective than others. The discussion below focuses on these styles. It also reveals that there are not only differences between the different leadership styles suggested by researchers and scholars but also a number of common features.

Transactional, Transformational and Passive Leadership

Burns (1978) attempts to distinguish between transactional and transformational leadership by raising the question of the difference between those who lead an organization, referring to transformational leadership and those who manage it, referring to transactional leadership. Transactional leadership involves using resources, among which is positional power of the leader over followers, in order to persuade the followers to complete a task (Burns, 1978). It focuses on basic needs and the leader motivates followers' compliance by offering them extrinsic rewards in exchange for efforts and output (Bass, 1985; Horner, 1997). Burns (1978) identified transactional leadership as the kind of leadership which is based on exchanges and transactions with promises and rewards between the leader and the followers, in order for the leader to gain compliance. Transactional leadership is identified by Burns as temporal, utilitarian and a non-binding relationship that exists for exchanging valued things.

Transformational leadership involves finding ways to motivate followers by satisfying higher-order needs and engaging them in the process of work (Bass, 1985). The recognition of followers' need to satisfy their higher needs was primarily identified by Burns (1978) as a fundamental attribute of transformational leadership. According to

Burns, transformational leadership is a process where “leaders and followers raise one another to higher levels of morality and motivation” (p.20). It is a relationship that satisfies deeper emotional needs of both leaders and followers.

Transactional and transformational leadership have been widely researched by a number of scholars since Burns (e.g. Bass, 1997, Bass and Avolio 1993; Leithwood et al., 1994; Yu et al., 2002) particularly focussing on their effects on aspects of organizational effectiveness such as followers’ job satisfaction, organizational commitment or commitment to change. Although Burns seems to promote transformational leadership as a more effective and favourable leadership style compared to transactional leadership, recent research (e.g. Bass, 1985; Judge and Piccolo, 2004; O’Shea et al., 2009), which focuses on the results of each of these two leadership styles on organizational effectiveness and is extensively discussed later in this chapter, has proved that both styles include attributes which have proved to be effective and also that transformational leadership should be used cautiously as in some situations it might lead to undesirable outcomes.

Bass and his colleagues (e.g. Bass 1985; Bass and Avolio 1993) have worked extensively on a theory of leadership that includes transactional and transformational leadership. More specifically, they have identified different factors for each leadership style. Transactional leadership was initially concerned with Contingent Reward and Management by Exception. Contingent Reward involves positive reinforcement, from the leader to the follower that emphasizes an exchange, facilitating the achievement of the objectives. Contingent reward was found by many researchers to positively contribute to leadership effectiveness (Judge and Piccolo, 2004; O’ Shea et al., 2009). It is in fact perceived as the only transactional leadership factor that correlates positively with job attitude and organizational effectiveness (Bass, 1985). Moving to Management by Exception, this

occurs when the leader uses negative reinforcement and punishment when things go wrong. Later, Management by Exception was further divided into whether it was passive or active (Bass and Avolio, 1994; Bass, 2000). For active management by exception leaders focus on negatives rather than positives; it occurs when leaders closely monitor their followers' performance, keep track of mistakes and take corrective actions about them. Passive management by exception is when leaders are unaware of problems that exist in the organization until brought to their attention.

A laissez-faire factor was added to the aforementioned styles. The laissez-faire leader is considered to be unconcerned about the organization and the staff, avoiding making decisions (Bass and Avolio, 1994; Bass 2000). Laissez faire leaders are neither transactional nor transformational. According to Jones and Rudd (2007) such leaders avoid making decisions, accepting responsibilities and are absent when needed. They fail to provide assistance to their followers and are not eager to express their views on important issues. Laissez-faire leaders give control in the decision-making process to the followers. They assume that followers should be left alone to accomplish tasks and goals without being motivated or provided with direction or guidance by their leader. Passive management by exception along with laissez faire are perceived to be passive leadership and better avoided (Bass 2000). Although this study is mostly concerned with transactional and transformational leadership styles, it also investigates passive leadership. According to Bass (2000) leaders need to be proactive, it is therefore important to identify whether headteachers of Cyprus use passive leadership when leading change.

Moving to transformational leadership, the vast majority of empirical research conducted in non-school as well as school contexts, was based on Bass's work (e.g. Bass 1985; Bass and Avolio 1993). According to Bass's model, transformational leadership is identified by

“Charisma” ensuring the respect and trust of the followers for the leaders, who have high standards and attainable mission and vision. Furthermore, “Inspirational Motivation provides symbols and simplified emotional appeals to increase awareness and understanding of mutually desired goals” (Bass and Avolio, 1993, p.52). In addition, “Intellectual Stimulation” motivates followers to find their own way of doing things. Finally, “Individualized Consideration” ensures equality among the followers and at the same time considers their individual needs. Although charisma and inspirational motivation have been theoretically identified as two separate dimensions of transformational leadership (Bass and Avolio, 1993), research has revealed that they are correlated and an empirical distinction between these two concepts could not be defined (Nguni et al., 2006). Hence, for research purposes they are treated as a dimension called “Charismatic or Inspirational Leadership” (Bass, 1985; Bass, 2000).

Bass’s model of transformational leadership was developed and extended by extensive research in school contexts (Leithwood, 1994). The image this provides about transformational leadership, includes sensitivity to organization building, developing shared vision, creating and improving organizational cultures, empowering others, distributing leadership among the people of the organization and encouraging risk taking, which is supported by a moral purpose. More specifically, Leithwood (1994) describes a number of transformational leadership practices considered in studies aiming to identify transformational forms of leadership in schools. These practices were identified to define the six dimensions which characterized transformational leadership. These dimensions are the following:

- Identifies and articulates a vision

- Fosters the acceptance of group goals
- Conveys high-performance expectations
- Provides appropriate models of behaviour
- Provides intellectual stimulation
- Provides individualized support (Leithwood, 1994, p. 507)

As it appears above, most of the dimensions of transformational leadership described by Leithwood (1994) can be identified in Bass and Avolio's (Bass, 1985; Bass and Avolio, 1993) concepts about transformational leadership. Charisma refers to the identification of a vision and inspirational motivation incorporates among others the promotion and acceptance of group goals. In addition, both accounts refer to the concept of intellectual stimulation as a feature of transformational leadership as well as the leaders being models of behaviour for their followers. Finally, individualized consideration refers to the provision of individualized support to the followers in order to achieve high standards of potential.

In Leithwood et. al (1999) two more dimensions of transformational leadership are added:

- Creates a productive school culture
- Develops structures to promote participation in school decisions

Taking into account all the definitions and dimensions attributed to transformational leadership by Burns (1978), Bass and Avolio (1993; 1994), Leithwood (1994) and Leithwood et.al. (1999), much discussion has taken place among scholars on the subject. Some of them (e.g. Yu et al., 2002) appear to be advocates of transformational leadership,

highlighting its positive effects on several aspects of organizational effectiveness whereas others (e.g. Fullan, 2001) view it with caution as it can lead to unwanted results. Below there is more extensive discussion of the main aspects of transformational leadership.

Vision

Vision has been regarded as an essential component of effective leadership for more than 20 years (Bush, 2008). Crawford (2003) maintains that a leader should constantly have a vision of how an organization can be at its very best. Leaders should shape a vision for their leadership role and how they would most effectively carry out this role and what the outcomes of performing it should be in order to contribute to organizational effectiveness. This vision should be shared among the staff of the organization, and together, within a spirit of collaboration, they should establish the school goals. According to Leithwood et al. (2008) building a shared vision and setting directions are increasingly important to the leader's effort to motivate colleagues.

There are, however, different views about how essential vision is for school leadership as well as the extent to which it can contribute to organizational effectiveness. Bolam et al. (1993) after a study of 12 "effective schools" conclude that most heads, although able to describe a kind of vision, have differences in their capacity to articulate this vision. Moreover, these visions were found to be general and not very remarkable. This could, to some extent, be attributed to the fact that headteachers need to be in line with the existing educational system, the government and its rules about the curriculum and how a school should function. One of the drawbacks therefore for vision to function as an effective aspect of transformational leadership is the educational system within which the leader is expected to perform his/her role. This study is conducted in a particularly centralized educational system, where headteachers do not have much flexibility to form their own

school policies; it would therefore be interesting to know the levels to which headteachers perform as visionary leaders.

At the same time, Fullan (1992) is concerned with the fact that visionary leaders might cause damage instead of improvement to a school. He states that some Principals are blinded by their own vision and, to a point, manipulate teachers and school culture in order to follow it. Eight years later, Allix (2000) is still worried about visionary leaders who might end up manipulating their followers in order to fulfill their vision.

Acceptance of school goals; shared commitment and collaboration; participation in school decisions

Two of the dimensions stated above (establish school goals, develop structures to promote participation in school decisions) are concerned with the fact that transformational leaders are working on a collaborative approach and believe that organizational goals can be better achieved by shared commitment, collegiality, collaboration and shared decision making. According to James (1999) improved collaboration through the promotion of teamwork can be a key objective in the school improvement procedure. These practices are also evident in one of Bush's models of management (Bush, 1995), the collegial model. However, transformational leaders go beyond just collegial structures of managing. They give emphasis to teacher professionalism and empowerment, and consider teachers capable of leadership, encouraging them to be self-directed. In addition they understand change and how to encourage change in others (Leithwood, 1992)

According to Senge et al. (1994), followers need to commit to a common goal and be convinced that they are responsible for pursuing and achieving this goal to move the organization forward. Research conducted by James et al., (2006) examining factors that

might contribute to high levels of attainment in 18 disadvantaged primary schools in Wales, revealed that one of these factors was the high level of staff commitment and engagement to achieve the “primary task” (p. 15) of the school, which was highly meaningful and significant to the staff. One way to achieve commitment is to use collaborative structures for decision making as discussed above, structures which are obvious in the transformational leadership model. Teachers will hence feel responsible for carrying out these decisions since these were taken with their consent.

Research reveals that effective educational leaders are those who inspire followers to a higher purpose, sharing power and responsibility with them (Hall and Hord, 1987). In addition, according to Yu et al. (2002, p. 369) “...leadership for reform in schools must be capable of influencing teachers’ commitment to change”. They consequently pose the question whether transformational leadership practices have such influence. Their study has proved that indeed transformational leadership has significant effects on teachers’ commitment to change. Similarly, Leithwood et al. (1999), identify the transformational leadership style as the one most likely to help leaders and followers respond productively to the significant challenges facing them. Other research (Fiol et al., 1999; Leithwood et al., 1994; Yu et al., 2002), focused on the correlation between transformational leadership and staff commitment to change, reveals that the effect of transformational leadership on teachers’ commitment is very similar across studies, however, the magnitude of this effect might vary in studies conducted in different contexts.

From the discussion above, it can be assumed that transformational leadership can be very closely related with notions of distributed leadership and teacher leadership since it promotes a school culture that fosters participative decision making and distributed

leadership, also encouraging teacher autonomy (Mulford and Silins, 2003). These issues will be more extensively discussed later in this chapter.

High performance expectations

Transformational leaders expect excellence, quality and high performance from their staff and these kinds of expectations help teachers' view of the challenging nature of the goals being pursued in their organization (Jantzi and Leithwood, 1996; Yu et al., 2002).

Critique of this attribute of transformational leadership has been exercised by Fullan (2001) and is discussed later in this chapter. Levin and Fullan (2008) also express reservations about leaders having expectations of high performance of their followers. They maintain that leaders must exercise only positive pressure for higher performance, pressure that motivates, is reasonable and is accompanied by resources for capacity building. They maintain that the more leaders invest in capacity building the more they have the right to expect higher performance. The notion of capacity building is discussed further later in this chapter.

Individualized support; motivation

Transformational leaders try to find ways to motivate followers by satisfying their needs, especially high-order ones, and also engage them in the process of work (Bass, 1985). Motivation is perceived as an essential factor for an organization's improvement and effectiveness (Senge et al., 1994). Leaders and followers are united in a pursuit of higher-level common goals, while the leader provides interpersonal support and offers his followers opportunities in order to fulfill their needs for achievement, responsibility, confidence and esteem (Germinario and Cram, 1998).

Transformational leaders also offer individualized support to all members of the organization, showing respect and concern about their personal feelings and needs (Yu et al., 2002). The dimensions of motivation and individualized support are likely to affect positively teachers' attitudes towards changing circumstances and consequently negatively teachers' levels of resistance to change, since they can be sure that whatever difficulties they might face when changing their practices, these will be considered seriously by their leader and efforts will be made in order to overcome any problems. Research based on this assumption will be attempted by this study.

Intellectual Stimulation; modeling

Intellectual stimulation refers to the behaviour of the leaders when they challenge the staff to rethink some assumptions about their work and how it can be performed more effectively (Yu et al., 2002). This kind of behaviour might enable teachers to understand the challenging nature of school change goals, thus show more positive attitudes towards them.

Another important aspect of transformational leadership is modeling appropriate behaviours. According to Jantzi and Leithwood (1996) modeling refers to behaviour by the leader that sets examples for staff to follow consistent with the values that the leader espouses. Elmore (2004, p.11 cited in Levin and Fullan, 2008) stresses the importance of modeling for achieving cultural change in an organization and maintains that "the process of cultural change depends fundamentally on modeling the new values and behaviour that you expect to displace the existing ones". Research on the influence of modeling on teachers' perceptions of leadership has proved that modeling is a very powerful strategy for influencing teachers' perceptions of leadership (Jantzi and Leithwood, 1996). What

was found to matter to the teachers is that their leader does good work for the school, and to be seen doing such work

Transactional or Transformational leadership?

The debate on whether a leader should perform as transformational rather than transactional concentrates on Burns' (1978) and Bass' (1985) notions of the two leadership styles with a number of other researchers attempting to investigate the positive or negative effects of the two styles on aspects that might contribute to organizational effectiveness. A difference exists between the concepts that Burns (1978) and Bass and his colleagues (Bass, 1985; Bass and Avolio, 1994) have formed around transactional and transformational leadership. Burns (1978) perceived transactional and transformational leadership as the two opposite ends of a continuum. A leader could be either transactional or transformational, with the former style to be considered less effective. On the other side, Bass and his colleagues (Bass, 1985) view the two leadership styles as independent, each of them composed of the factors mentioned above, supporting the fact that transactional and transformational leadership could, and should, coexist in an organization and its leader. They maintain that, although transactional leadership alone does not stimulate change, it is necessary for the organizational continuance and in combination with transformational leadership, which is considered to be a predominant style, it provides the appropriate resources for significant individual effort, satisfaction and effectiveness, as well as organizational improvement.

Bass (2000) believes that every leader might possess aspects of transformational and transactional leadership styles, however to a different extent. He calls this the "Full Range of Leadership" (p. 24) and implies that the most desirable outcome of it would be a leader who practices the transformational elements more frequently than the transactional ones,

with the transactional practices to deal with the basic needs of the organization and the transformational ones to encourage commitment and foster change.

The importance of transformational leadership and the possibility to exist in combination with transactional leadership for increased effectiveness is stressed by Bass:

“Research has demonstrated the utility of transformational leadership for increasing organizational satisfaction, commitment, and effectiveness, as well as the increased understanding of the dynamics of transformational leadership. There is a good fit of transformational leadership with the needs of leadership in the learning organization. But leadership can also be transactional. The good leader of the learning organization will be both but more transformational and less transactional.”

(Bass, 2000, p. 21)

Leithwood with his colleagues (e.g. Leithwood, 1994; Leithwood et al. 1999), Bass and Avolio (e.g. Bass 1985; Bass and Avolio, 1994; Bass 2000), as well as other scholars have provided a number of studies conducted in primary and secondary schools aiming to relate transformational or transactional leadership models to the perceptions, behaviour and outcomes of different members of the organization, in order to define possible effects.

With respect to the effect of transformational leadership on student outcomes, there is a limited number of studies conducted because, as Leithwood et al. (1999) maintain, these effects are likely to be indirect and difficult to analyze since they are mediated by teachers and other factors. The few studies conducted, however, reveal significant indirect effects of transformational leadership on perceived school outcomes (Leithwood et al., 1999). In addition, studies conducted to examine the effect of transformational leadership on student

participation and student identification with the school, found weak direct and significant indirect effects (Leithwood et al., 1999).

Other studies conducted aimed to investigate the effects of transformational and transactional leadership on perceptions of leaders' effectiveness and satisfaction with the leader (Bass, 1985; Leithwood et al., 1999). These studies revealed positive relationships between charisma/vision/inspiration, intellectual stimulation and individualized consideration which are dimensions of transformational leadership as well as contingent reward which is a component of transactional leadership. With respect to the other two dimensions of transactional leadership, management by exception was reported to have non-significant effects, whereas laissez-faire proved to be negatively related to both perceptions of leader effectiveness and satisfaction with the leader. Two additional studies (Koh, 1990; Orr, 1990 both cited in Leithwood et al., 1999) revealed significant positive relationships between transformational and transactional leadership as a composite and satisfaction with the leader.

Studies aiming to investigate the effects of transformational and transactional leadership styles and followers' behavior revealed that transformational leadership was negatively related to non-compliance, whereas management-by-exception was positively related to non-compliance of the followers (Bass, 1985). In addition, transformational leadership (mostly charisma/vision/inspiration, intellectual stimulation and individualized consideration) proved to be significantly positively related to the extent to which colleagues were prepared to engage in extra effort for the organization. On the other hand, contingent reward had non-significant effects, whereas management-by exception was negatively related with extra effort. Evidence related to the behaviour of followers this study will attempt to reveal as well. It is expected that similar findings will be found.

The above findings reinforce the argument that the components of transformational leadership with the most positive effects are charisma/vision/inspiration, intellectual stimulation and individualized consideration whereas the dimension of transactional leadership with the most positive effects is contingent reward. The other components of transactional leadership have proved to have non-significant or negative effects. As for high expectations, which is perceived to be a component of transformational leadership, as will be discussed later, it is possible to negatively affect the behavior and belief of followers.

Distributed Leadership

Besides the aforementioned dimensions identified by the literature as attributes of transformational leadership, a dimension very often encouraged by transformational leadership practices is distributed leadership. Leadership used to be thought of in terms of the headteacher or principal. Nowadays, the case seems to be different. Leadership is shared across the school and authority and responsibilities are distributed. Leaders support teachers and deputies when allowing them to take on different tasks and responsibilities, by acting as their mentors, listening to their ideas, commenting on their decisions and providing opportunities for everyone to lead (Southworth, 1998). However the notion of distributed leadership moves a step further than simple delegation and sharing of responsibilities.

According to Bush (2008) distributed leadership is another step along the continuum from management to leadership, since he associates management with positional authority, whereas leadership can be exercised by people without formal management roles. The concept of distributed leadership is often compared with earlier notions such as collegiality

(Woods, et al., 2004). However, three distinctive elements are identified by Woods et al. (2004) to discern distributed leadership from previous ideas. Firstly, distributed leadership represents leadership that emerges from a group of interacting individuals and not leadership which arises from the individual. Secondly, distributed leadership supports “openness of the boundaries of leadership” (p. 442). This means that the nets of leaders can be widened and groups and individuals can be seen as contributors to leadership. Finally, distributed leadership requires a variety of expertise to be distributed across the many, not the few, and perspectives and capabilities found in individuals to be spread throughout the organization.

Distributed leadership seems to be closely related with aspects of transformational leadership. Leithwood et al. (1999) assume that transformational leaders share leadership with their followers and their way of leading is not based on controlling and coordinating others but on providing personal vision, individualized support and intellectual stimulation. They encourage all members of the organization to develop and realize that the goals of the organization will be more effectively achieved if they work together. Thus, the teachers will feel increasingly confident and capable of adopting a leadership role and exercise teacher leadership. Hallinger (2003) similarly supports that transformational leaders conceptualize leadership as an organizational entity, rather than the task of a single leader, which is searching for multiple resources of leadership.

According to Hallinger and Heck (1999) “it is as foolish to think that only principals provide leadership for school improvement as to believe that principals do not influence school effectiveness” (p.186). They emphasize that the concept of distributed leadership is not only theoretically attractive but also potentially great in practice. Leadership is a process distributed throughout the school and the idea that a high-performing organization

can be better achieved with leadership as a distributed concept is widely accepted (Dimmock, 2003).

Holistic leadership

Another notion that seems to be very closely related to transformational leadership is that of “holistic leadership” (Beattie, 2002, p. 199). According to Beattie (2002) a holistic leader is concerned with the emotional, intellectual, moral, social, and aesthetic dimensions of all the members of the organizational community. It is based on building up relationships within the organization, and developing collaboration and commitment among all members relating to it. Beattie’s research describes the conditions, structures, programmes and procedures of a successful model of a school which shows the ability to respond effectively to changing circumstances. Its effectiveness is attributed to the fact that it functions based on the notions of shared vision, shared leadership, collaboration, continuous learning, continuous development of the teachers, modelling behaviours, intellectual stimulation, individualized support, trust and commitment, attributes which can be clearly identified in Bass and Avolio’s (1993; 1994), Leithwood’s (1994) and Leithwood et.al’s. (1999), transformational leadership model.

Other Leadership Styles

Including transformational leadership discussed above, Leithwood et al. (1999), identify six major categories of leadership models. The “Instructional” style focuses on student learning; “Moral” leadership is often identified with the development of democracy, and covers the ideas that there are particular duties required of those who have care for the young and that values should predominate in matters of leadership. In addition, “Participative” leadership focuses on shared decision-making; “Managerial” leadership can

be identified with managerialism and mostly with achievement of targets, whereas “Contingent” leadership means that the leaders adapt their style to the specific demands of their contexts.

The six leadership models described above (Leithwood et al. 1999) were adapted by Bush and Glover and extended to nine. Bush and Glover have added “Transactional leadership” which has been discussed above, “Interpersonal leadership”, and “Postmodern leadership”. These leadership styles are discussed below.

Instructional Leadership

The Instructional leadership style is identified as one focusing on students’ learning in order to improve educational outcomes (Leithwood et al., 1999). The role of the headteacher is therefore more concerned with the behaviour of teachers that focuses on helping students learn and engaging them in learning activities (Stewart, 2006). Studies using an instructional leadership style provide evidence that leaders who pay attention to their teachers, solving instructional problems with them, collaborate with them and create opportunities for staff development can affect the school’s outcomes (Heck, Larson and Marcoulides, 1990). As cited above, the concept of instructional leadership covers the actions which a principal takes to promote students’ learning and enhance learners’ outcomes. Hallinger (2003) suggests three dimensions of instructional leadership: defining the mission of the school, managing the instructional program and promoting a positive climate for learning.

Researchers have critiqued the instructional leadership style, for being a style in which the leader focuses more on learning outcomes, and teachers’ behavior for achieving such, rather than processes and attributes required for innovation and school improvement.

According to Fullan (2002a) instructional leaders used to be perceived as effective leaders needed for innovation. Therefore, school districts used to concentrate on the development of headteachers into instructional leaders, able to affect instructional quality and student achievement (Fink and Resnick 2001). However, Fullan (2002a) argues that the role of the headteacher as instructional leader alone is not enough for the kinds of reforms and changes that school improvement needs. He perceives the role of the headteacher as instructional leader as “too narrow a concept to carry the freight of the kinds of reforms that will create the schools we need for the future” (Fullan, 2002b, p.2). He maintains that instructional headteachers concentrate on student learning and ignore new, innovative, external ideas that can improve the school vision. What schools need is leaders who can create transformation in the learning cultures of the school and on the teaching profession (Fullan, 2002a and Fullan, 2002b). Similar ideas are shared by Leithwood (1994) who claims that the instructional leadership image is no longer adequate as it concentrates on classroom outcomes instead of addressing second order changes such as organizational building.

Steward (2006) and Hallinger (2003) claim that another problem of instructional leadership is that in many schools the headteacher is not an educational expert. In some cases in fact headteachers have less expertise in teaching than the teachers they supervise. However, this is not the case for Cypriot headteachers. As discussed previously, only teachers can be promoted to the position of a headteacher, and only after they have had a certain number of years of experience in teaching.

Managerial Leadership

This type of leadership focuses on the managerial tasks of the leader. It assumes that an organization will be facilitated if these tasks, functions and behaviour are carried out

(Leithwood et al. 1999). Such tasks could be: supervision, control of students, teacher behaviour, outcomes or budgeting. Managerial leadership seems to be closely related to one of the models of management suggested earlier by Bush (1995), the “formal model”.

Managerial leadership does not include the concept of vision, which seems to be important to most other leadership styles. It focuses more on dealing with existing activities successfully rather than envisaging a better future for the school. It also does not include most of the other dimensions espoused by other leadership styles such as individualized support, intellectual stimulation or building commitment among followers. Managerial leadership seems actually to be a non-leadership style. Headteachers show managerial styles of leading because of the day-to-day tasks they have to carry out. It is not, however, a style that they choose to adopt in order to lead their school and especially under changing circumstances. However, the adoption of a managerial leadership style is actually unavoidable and according to Bass (2000, p. 35) it is sometimes the case that “managerial responsibilities supplant leadership activities”. It is also perceived as important for successful leadership, as it ensures the implementation of the school’s strategy and vision (Bush, 2003, p. 55).

This study deals with change, which is actually about improving schools and moving towards better conditions. Therefore, the managerial leadership style will not be considered in this investigation as it appears to be more related with present, stable conditions rather than with changing ones.

Moral Leadership

This leadership model is closely related to organizational culture. According to Leithwood et al. (1999) this model assumes that the focus of leadership should be on the values, ethics

and beliefs of the leaders, who are expected to behave according to what is “right” or “good” (p.10). These values and beliefs combine into common norms and shape the organizational culture. Moral leadership focuses on the moral purpose of education. Its emphasis on developing the commitment of the followers makes it similar to the transformational leadership style however, moral leadership focuses more on values and moral purpose (Bush, 2003). It also seems to be similar to “democratic leadership” that Hay/McBer suggest and discussed later in this chapter (The Open University, 2008).

Fullan (2002b) is also concerned with the moral aspect of leadership. In his hypothetical model of principal, who he calls the “Cultural Change Principal”, he maintains that one of the core components of an effective change leader should be moral purpose. He claims that change leaders should be concerned with making a sustained difference in transforming and sustaining system change. To achieve this they should not only care about changing their own organization but also about how to move the whole system forward, including other schools in the school district, be concerned about developing not only themselves but also other leaders and care about students, teachers and parents. To be able to do so they need to be motivated by moral purpose. According to Bush (2003) the main difficulty which might arise from this model is that the staff or stakeholders may not support the values of the leaders.

Postmodern Leadership

The postmodern leadership model offers few clues as to how leaders should operate. Instead of a vision formed by leaders and followed by followers, there are multiple visions and cultural meanings (Bush, 2003). Each participant might have a unique perception of the institution and power is distributed throughout the school. Its main limitation, according to Bush (2003) is that it offers little guidance for leadership action.

Participative and Interpersonal Leadership

Participative leadership refers to collaborative decision making and to the allocation of responsibility for decision making to different individuals or groups (Bush, 2003). It provides the opportunity to the staff to become actively involved in the decision-making process. According to Bush (2003), participative leadership could be effective in gaining the commitment of the participants, as well as the developing of team work, but it could be time consuming as regards the decision-making procedure in order to reach agreement.

This model of leadership could be related to transformational leadership since they both represent collegial ways of leading and they both assume that leaders and staff share commitment and have common interests. It could also be related to the notion of distributed leadership which is discussed above.

Interpersonal leadership also stresses the importance of collaboration and interpersonal relationships (Bush, 2003). It is as well concerned with “interpersonal intelligence”, which is defined as “the authentic range of intuitive behaviours derived from sophisticated self-awareness, which facilitates engagement with others (West-Burnham, 2001, p. 2). These high-level personal and interpersonal skills are considered to be very important for the work of school leaders to be effective.

Contingent-Situational Leadership

Most of leadership styles discussed above (possibly with the exception of transformational leadership) provide insights on one particular aspect of leadership. According to Bush and Glover (2003) most of these styles are normative, partial and do not provide a complete picture of school leadership. An alternative approach to leadership is the situational leadership model which appears to be similar to the contingent model of leadership,

referred to by Leithwood et al. (1999), where leaders adapt their style to the demands of their contexts.

As Leithwood et al. (1999, p 15) suggest, “what is important is how leaders respond to the unique organizational circumstances or problems”. A single leadership approach is inappropriate for the complex educational context. Therefore, leaders should be able to evaluate the situation and adopt the most appropriate style to respond. According to Bush (2003, p. 188) “contingent leadership is not a single model but represents a mode of responsiveness which requires effective diagnosis followed by careful selection of the most appropriate leadership style”.

Situational leadership stresses that the leader’s behaviour should vary depending on the nature of the situation in which the leader functions; the premise that one approach to leadership is preferable to another is therefore rejected. The situational leadership theory suggests that no specific style of leadership or personal qualities of a leader are appropriate for every situation (Snowden and Gordon, 1998). The importance of situational leadership can easily be apparent in the educational sector, where circumstances change quickly, and individuals have to be able to adapt to new situations. Consequently, different leadership support is needed according to the situation. According to Whitaker (1993) ineffective leaders either use the same style for all situations, or use specific styles inappropriately. Effective leaders assess the needs of the related situation and people, and adapt to the style that is most appropriate.

On the other hand, the fact that leaders’ behaviour and their style are influenced by their personality appears to be a major problem of the situational theory. Therefore, although the demand for leadership may change, a leader’s personality, which is rather more consistent,

may not make it possible for him/her to adapt to the new situation (Snowden and Gordon, 1998).

Hay/McBer's leadership styles

Hay/McBer (Goleman, 2000) refer to six leadership styles through which leaders can persuade the staff to follow them. These styles are summarized in the table below:

Table 2.1: Hay/McBer's leadership styles

Style of leadership	Focus of leadership
Coercive	Reflects a power motivation and a wish to control and direct others
Authoritative	Rests upon long-term direction and mobilizing people towards a vision
Affiliative	Is concerned with creating harmony and emotional bonds among colleagues
Democratic	Centers on building commitment and relies on consensus
Pacesetting	Aims to getting things done to a high standard, expecting excellence and self direction
Coaching	Is devoted to long-term professional development of staff

(Hay/McBer cited in the Open University, 2008; Goleman, Boyatzis and McKee, 2002).

Goleman (2000), when examining the relationship between these leadership styles, organizational climate and financial performance, found that two of the six styles negatively affect climate and performance. These were coercive and pacesetting leadership. All other styles were found to have a significant positive impact on climate and performance. However, it is suggested that all styles are important and effective in some situations thus successful leaders are skilled in several leadership styles (Goleman, 2000; Fullan, 2001).

The discussion on leadership styles above reveals that Hay/McBer's leadership styles can easily be compared with aspects of transformational and transactional leadership. Fullan (2001) has identified ways in which these six leadership styles may affect whether an organization will succeed or fail in change processes. Therefore, authoritative, democratic, affiliative and coaching styles have been identified as effective ones to use when leading change. These styles reflect to a number of dimensions of transformational leadership such as vision, modeling behaviour, individualized support, collaborative school cultures and building commitment. On the other hand, pacesetter leaders are viewed by Fullan with caution, as setting high standards of performance and having high expectations may often cause frustration among followers. Fullan's ideas will be discussed at a later point in this chapter.

An overview of leadership styles

From the discussion above it appears that most classifications of leadership styles seem to have similarities with respect to the notions they are based on and the kind of leadership behaviour they describe. According to Bush (2003) the perspectives on different leadership models, presented by various writers, overlap in several aspects. It is actually noted that similar models are given different names. An attempt to put the main models together, in order to identify their similar features, is in the table below.

Table 2.2: An overview of leadership styles

Vision	Acceptance of group goals	Individualized support-motivation	Shared commitment and collaboration	Participation in school decisions	High expectations	Intellectual stimulation-Modelling	Focus on learning outcomes	Power motivation	Absence of leadership practices
Transformational	Transformational	Transformational	Transformational	Transformational	Transformational	Transformational	Instructional	Transactional (Contingent reward and Active management by exception)	Transactional (Passive management by exception and Laissez faire)
Postmodern	Participative	Affiliative	Moral	Distributed	Pacesetting	Coaching		Coercive	Passive
Authoritative	Distributed	Participative	Distributed	Participative					Managerial
		Interpersonal	Democratic	Postmodern					
			Interpersonal	Interpersonal					

It is evident that most of the leadership styles have common features with respect to the leadership attributes and behaviours they suggest. This study will concentrate on transformational and transactional leadership styles for a number of reasons. Firstly, from the preceding discussion and evaluation of a number of leadership styles, transformational and transactional leadership appear to integrate most of the notions that the rest of the styles refer to. In fact, some scholars have even claimed that transformational leadership is a universal style of leadership that works everywhere (e.g. Bass, 1997). Secondly, the discussion of a number of studies conducted to investigate the effectiveness of transformational and transactional leadership have revealed that effective leadership is both transformational and transactional (e.g. Bass, 1985; Judge and Piccolo, 2004; O'Shea et al., 2009). In addition, the literature review that took place above reveals that very little research has been conducted to examine transformational leadership in the context of organizational change (Wanous et al, 2000). Finally, transformational and transactional leadership styles are accepted to be more appropriate for leading changing situations (Bass and Avolio, 1994; Sergiovanni, 1990), which are issues that this study will attempt to investigate. The need to examine particularly transformational leadership in an organizational change context is pointed out by Wu et al., (2007). More extensive discussion on the relationship between transformational and transactional leadership with change takes place in the following section of this chapter. Passive leadership will also be investigated in this study since it actually represents absence of leadership, thus a style to be avoided.

CHANGE AND LEADERSHIP

Bearing in mind the above, it seems obvious that one of the aspects that a leader should support in order to be effective, is the ability to adapt to change (Horner, 1997). Change, involves moving from a present state of affairs to a different future one and requires new knowledge and skills in order for the people involved to adapt successfully to the new circumstances (Whitaker, 1993). Schools and school systems are integrated in a changing environment therefore they are subjected to change.

Change can be defined as internally or externally imposed. Externally imposed is mainly defined as the kind of change that is determined by factors beyond the school i.e. government policies (Clarke and Christie, 1997). Internally imposed is the change that has been decided and planned within the school and by the school stakeholders. It would be reasonable to say that when external changes are to be implemented, then internally imposed events have to be planned as a reaction and an attempt made to respond to the externally imposed ones. A relevant study was conducted investigating how an English primary school has responded to an externally imposed innovation and subsequently what internal school events occurred as “patterns of response to the external trigger event” (Clarke and Christie, 1997, p. 356).

Change, it is argued, is not always compatible with improvement. Levin and Fullan (2008), explain that there are plenty of examples of change efforts that have not generated the desired results. Consequently they show interest in establishing change strategies that can create lasting improvement and suggest the following areas of attention when trying to achieve sustainable change:

- A small number of ambitious but achievable goals
- A positive attitude with focus on motivation

- Multi-level engagement with strong leadership and guiding coalition
- Emphasis on capacity building with a focus on results
- Focus on key strategies
- Effective use of resources
- Constant and growing transparency including public and stakeholder communication and feedback

(Levin and Fulan, 2008, p. 292)

The importance of leadership for effective change implementation is stressed by a number of authors. MacBeath (1998) suggests that leadership in an educational context suggests a selection of leaders who are change-friendly and change agents. In addition, Newton and Tarrant (1992) suggest that positive attitudes towards change are commonly promoted as helpful to innovation and sustain the change progress. According to Paton (1992) the style of management adopted by those directly involved in the change situation will influence those whose co-operation and assistance is required.

In relation to the above, there are a number of skills that might enable the leader to deal with change effectively. Leigh (1994) suggests that, a core skill in managing change is the ability to manage and relate to people. There is also a need for leaders able to take responsibility, define the need for change, create new visions and be committed to these visions, trying to fulfill them by finding ways to develop autonomous and creative individuals whose needs and values are being considered and respected. Such leadership is identified by the literature as transformational leadership (Leigh, 1994; Leithwood, 1992; Bass and Avolio, 1993). The nature of transformational leadership has been extensively discussed in a previous part of this chapter; therefore here more attention will be paid to the relationship between transformational leadership and change.

The adoption of transformational leadership styles to achieve change is supported by many writers (Bass and Avolio, 1994; Sergiovanni, 1990 for example). The leader is the one who can ensure that a school is open and responsive to change. One of the main dimensions of transformational leadership is understanding change, including how to encourage change in others. According to Fullan (2002b) it is not enough to have visions and innovative ideas. Leaders need also to be good at the change process. To be a good change agent requires not only the leaders' commitment to their own ideas but also commitment of the followers. Leaders should demonstrate an ability to engage others in a commitment to change: "being a change agent involves getting commitment from others who might not like one's ideas" (Fullan, 2002a, p, 17).

In transformational leadership leaders and followers are united to achieve higher-level common goals, related to school improvement. Transformational leaders must prepare to lead change, firstly by understanding the nature and process of change and then by providing all the necessary elements to the people that are engaged in the change in order to be successful (Zimmerman, 2004). It seems, therefore, that transformational leaders can be effective change agents (Sergiovanni, 1990; Walker, 1993 in Germinario and Gram, 1998). A study of leadership in an institute of higher education undergoing change, demonstrates that the principal and managers adopted high levels of transformational leadership, possibly because this style was found more suitable to initiate change and promote morale (Young, 2004).

Leithwood (1994) argues that transformational leadership is particularly important to school education which is characterized by change and he suggests premises to support the usefulness of transformational leadership during the change procedure: transformational

leadership promotes followers' motivation and commitment, which can lead to the extra effort needed for change implementation. Also, the notions of empowerment of staff, staff development and dispersed leadership, found in transformational leadership, are viable during change implementation. Moreover, he describes the dimensions of transformational leadership that can facilitate changing circumstances. These have already been discussed above.

As mentioned earlier, Fullan (2001) has discussed how the leadership styles identified by Hay/McBer can be effective or not under conditions of change. According to Fullan (2001), "the goal is not to innovate the most" (p. 44). The pacesetter leader focuses on tackling innovation after innovation, has extremely high performance expectations from all members of the staff and always demands more and more. According to the transformational leadership model, setting high standards and performance expectations is perceived as an asset for the leader. Fullan however points out that such behaviour not only does not improve results but also destroys organizational climate. He (2002b) maintains that leadership which is more comprehensive has deeper and more lasting impact than leadership focusing just on higher standards. It is indeed true that employees could feel frustrated and overwhelmed by their leaders' continuous demands for excellence. Transformational leaders should therefore search for the difference between implementing change after change and developing their subordinates' capacity and commitment, first to solve complex problems and then to innovate. Actually, this is what transformational leadership is about: combining aspects of different styles in order to mediate the negative effects of one with the positive effects of the other. This is where the role of emotional intelligence becomes important. This concept and its fit within leading change effectively are discussed later in this section.

The authoritative leader on the other hand is perceived and found to have a positive impact on climate and performance (Goleman, 2000). However, Fullan (2001) argues that authoritative leaders, that is leaders with clear visions and good ideas, can only be effective when they manage to mobilize their followers to commit to them.

The bottom line of the discussion on Hay/McBer's styles is that no style alone can be appropriate for leading change. According to Goleman (2000) and Fullan (2001), leaders need to combine all four of the, perceived to be, successful styles (authoritative, democratic, affiliative and coaching) to ensure best climate and business performance. These styles have been related to different aspects of transformational leadership. It seems therefore rational to assume that since transformational leadership combines aspects of all these four effective styles, it could itself be a successful overarching style to adopt when leading change.

Capacity building

Capacity building is a means of achieving change by transforming an organization into a community able to maintain continuous improvement (Mitchell and Sackney, 2000). It aims to incorporate all members of the organization into the learning community.

Levin and Fullan (2008) identify as the most important item on their list of elements useful to achieve sustainable change (cited above) "capacity building with a focus on results". It involves developing individual and collective knowledge, competencies, resources and motivation, capacities which are specifically about getting results. The same authors (2008) maintain that lasting improvement can happen only when people develop new capacities such as the above.

Values and organizational culture

Leadership is continuously linked with values (Bush, 2008). Leithwood et al.'s (1999) model of moral leadership is grounded on the importance of the values that the leaders have, based on which they form organizational culture, hence organizational values. According to Sergiovanni (2000) the values adopted by the educational leader are critical to the development of a formally supported value system for the organization, upon which its culture is based. In addition the norms that rule the school culture “shape reactions to internally or externally proposed or imposed improvements” (Stoll, 1999, p. 98). It seems therefore that the leadership style of the headteacher and the culture of the school organization play a critical role in the competence and readiness of a school for change.

Transformational leadership seems to be based on motivating values (Open University, 2008). Transformational leaders seek out ways to motivate followers by satisfying their needs, especially high-order ones and also by engaging them in the process of work (Bass, 1985). Motivation is seen as an essential factor for an organization's development and effectiveness (Senge et al., 1994). Sarros et al., (2008) in a study examining climate for innovation as an indicator for the capacity of organizations to become innovative, found that individualized support, which is related to the aforementioned motivational practices, is positively related to climate for organizational innovation.

Transformational leadership seems also to be based on integrative values that aim to draw individuals into a collectivity (Open University, 2008). It is based on democracy, cooperation and collegiality. Honesty, trust and respect are values established among all members of the organization. Power is shared among colleagues. Leaders and followers are

committed to a shared vision and a co-created culture. Ross and Grey (2006) found that transformational leadership practices have a strong, positive effect on teachers' commitment to a professional learning community and school mission as well as on their sense of collective teacher effectiveness.

The issue with values is whether leaders espouse their own values or those of the government which rules the educational system. Bush (2008), referring to the situation in England, argues that:

“the dominant values and policies are those of government and these are imposed on school leaders...The scope for leaders to act according to their own values is circumscribed by central power...Leaders are free to pursue their own values only if they are consistent with those of central government” (p. 277).

As noted earlier, the educational system in Cyprus is highly centralized. It could thus be inferred that the headteachers of Cyprus act according to the values and policies they are expected to implement by the government instead of espousing their own values. In such cases, Bush argues that values-free policy implementation can be regarded as “managerial” (p. 278).

Reshaping culture

The concept that a leader should be able to understand the school culture, how it has developed to its present state and how it may be changing, is widely accepted (Fullan and Hargreaves, 1992; Snowden and Gordon, 1998). Kotter (1998) maintains that “only

through leadership can one truly develop and nurture culture that is adaptive to change (p. 166). Bringing about change successfully, requires participants to understand the cultures of the communities in which they will be attempting to implement change, so they will be able to assess and appreciate how the norms and beliefs of these communities can support or reject change (Busher, 2006). Research conducted by Wale (2003), investigating secondary headteachers' perceptions of what they see as the leadership skills, attributes and strategies necessary to achieve effective change, reveals that the heads were aware of the effect that culture has on change and improvement. Heads also demonstrated a commitment to their schools, feeling responsible for their success or failure.

According to Short and Greer (2002), in order to build commitment among the teachers and also encourage them towards risk-taking and innovation, a large change in the school culture is required. Relative to the above is the idea that a principal-leader, who can be successful in transforming the school culture, creating a collaborative one, allows change to be a natural process, commonly shared across the organization (Fullan, 2001).

The role of emotional intelligence

Emotional Intelligence is the area of cognitive ability involving traits and social skills that facilitate interpersonal behaviour. It focuses on the individual's capacity to deal effectively with others. Goleman et al. (2002) define leadership competence in emotional intelligence as how leaders handle themselves and their relationships. They claim that such leaders are aware of their own emotional profile, are sensitive and inspiring to others and are capable of dealing with both day-to-day problems as well as fundamental changes in the organizational culture.

Fullan (2002b) maintains that improving relationships can lead to successful change thus leaders need to focus on building up relationships with people and groups, especially the ones that have different ideas and perceptions. He calls these kinds of leaders “Cultural Change Principals” (p. 3) who work on the full range of areas of emotional intelligence, focusing more on self-management of emotions. “Building relationships is the resource that keeps on giving” (Fullan, 2002b, p. 7). He, hence, agrees that emotional intelligence is a fundamental attribute of a successful change leader.

According to Fullan (2001), the four leadership styles that Goleman (2000) found which are underpinned by emotional intelligence are: authoritative, affiliative, democratic and coaching. Low emotional intelligence underpins the coercive and pacesetting leadership styles. Emotional intelligence can also be linked with moral purpose (a component of which is how leaders treat other members of the organization), which has been discussed earlier in this chapter.

Resistance to change

The discussion above supports the idea that leaders who want to bring about change need to collaborate with the other members of the school community, such as staff, parents and students, and listen to their thoughts about change and goals they want to achieve and how these can be accomplished. On the other hand, autocratic leaders, who find it easier to impose change, will most probably meet resistance by other members of the community (Busher, 2006). Resistance to change is defined as a purposeful behaviour, a strategy to protect self from threats to self-esteem and psychological survival (Whitaker, 1993; Mentz, 1997). According to Boga and Ensari (2009) change actions might cause anxiety to

employees, who might establish negative perceptions about the organization in general and as a result eliminate any intended progress that change could accomplish.

There are a number of factors that can cause resistance. Plant (1987, cited in Newton and Tarrant, 1992) suggested factors such as fear of the unknown, lack of information, fear of failure or unwillingness to let go. Another factor that might cause resistance from the followers is the resistance that leaders themselves demonstrate. An example of leaders who resist change and perform as non-transformational leaders is identified in James and Vince's (2001) study. These leaders report feeling worried about sharing responsibility and roles with colleagues. They feel uncertain about how they will respond to new challenges. They don't seem to be eager to work with uncertainties and anxieties, they fear the unknown, they are not willing to take risks or act productively on their roles. Hence, they don't seem to be able to make change happen, as an effective transformational leader would do. This kind of behaviour on behalf of the leaders is likely to cause similar feelings in followers, since they lack the motivation and support of their leaders which according to the transformational leadership style are important factors for obtaining followers' commitment.

Fullan (2001) identifies as a main feature of the change process the fact that organizational members experience a dip in performance and confidence as they engage in an innovation that requires new skills and knowledge. They feel anxious, frustrated, confused and overwhelmed and these feelings can mainly be attributed to two reasons. First the fear of change and second, the lack of knowledge of how to make change happen. The latter can very much be related to the Cypriot situation and the implementation of ICT, where teachers in primary schools in Cyprus might offer resistance to the particular change,

mostly because they don't have the appropriate technical knowledge to implement this change successfully.

It is obvious that leaders need to help people overcome these feelings. According to Boga and Ensari (2009) leadership has the capacity to influence employees' perception of change. Similarly, Cole et al., (2006) found that supervisors' support can help employees overcome the feelings of frustration. Leaders have to find ways of helping people to feel comfortable with the changes and the processes of change, so to reduce the levels of opposition and resistance to the proposed developments (Busher, 2006). Such ways could be: taking into account the needs, attitudes and beliefs of the individuals involved in the change procedure; sharing of information and plans related to change by all relevant people in the group; participation in decision making, negotiation and consultation; group cohesiveness and collegiality; (Newton and Tarrant, 1992; Paton, 1992; Boga and Ensari, 2009). One way of providing followers with protection from the risk and uncertainty associated with change is collaboration and promotion of teamwork (James, 1999). It seems that leaders who possess aspects of transformational leadership, especially inspirational motivation and intellectual stimulation, have the appropriate attributes to handle situations of change resistance. Inspirational motivation ensures harmony, respect and trust among colleagues and intellectual stimulation is about promoting professional, intellectual development and thus capacity building. It supports the change implementers to acquire the appropriate knowledge about change and how they can make it happen. The above are also attributes of the affiliative and coaching styles of Goleman (2000). Helpful, in some occasions, can also be the enthusiasm, self confidence and optimism of the authoritative leader. The key is once again the combination of styles (Fullan, 2001).

Leaders must be able to build relationships with the people of the organization, especially with the ones who think differently (Fullan, 2002). People who oppose change sometimes raise important points so leaders must find ways to deal with their concerns (Fullan, 2002; Zimmerman, 2004). Hence, it seems obvious that leaders are required to adopt a style, very similar to the transformational one, in order to be able to bring about the change demanded (Wale, 2003).

LEADERSHIP TRAINING

The continuous changes that schools face and the demand for supportive leadership at all levels, able to meet these challenges, indicate the need for adequate and effective models of training and high quality professional development for the leaders (Harris et al, 2001; Nguni et al., 2006). Bolam (2003) defines leadership development as “an ongoing process of education, learning and support activities” (p.75) that takes place in either an external or a work-based environment, engaged in by professional teachers or headteachers and aims mainly at promoting the learning and development of professional knowledge, skills and practice. In addition, it helps school leaders to implement changes in their leadership behaviour, so that they can achieve high-quality education for their students more effectively. Leithwood et al’s (2006) findings that leadership can influence classroom teaching and consequently student learning, leads to the assumption that leaders should undertake particular preparation in order to carry out their role effectively.

Leadership is partly charismatic but also depends on a high level of knowledge, ability and expertise (Smith, 1992 and Sharpe, 1995 in Frew, 1997); the need therefore for leadership preparation appears to be obvious. In fact, it is widely accepted that leaders and managers need specific preparation in order to be successful in leading schools (Bush, 2003). According to Busher and Barker (2003) leaders need to have sufficient expert knowledge

about organizational processes, as well as about learning and teaching, in order to be able to guide their colleagues to bring about change successfully. Specifically, the development of effective leaders needs a variety of strategies, such as high-quality courses, mentoring by experienced and successful school leaders and opportunities to practice management at several stages during their career.

Leadership preparation appears to contribute to headteachers' ability to adopt appropriate leadership styles such as transformational leadership. Goleman (2000) suggests that leadership training can teach people to analyze situations better and use the appropriate style. Wale (2003) identifies a qualitative difference between training and education for leadership, attributing to the latter greater opportunity to reflect on the relationships that underlie transformational leadership. In addition, Leithwood and Jantzi (2005) point out that formal training experiences were found to be antecedents that have a meaningful influence on leaders' transformational practices. Hence, school leaders' preparation should involve theory and practice, in order to promote leaders capable of transforming schools (Sherman, 2006).

Training is also a very important element for the leaders in order to be prepared for organizational change. According to Orr et al. (2008) one reason for the difficulties that leaders face during change implementation may be "the inability or lack of skill of leaders to take advantage of the restructuring strategy and other aggressive school improvement approaches" (p. 676). Therefore, leaders need to prepare to lead change by understanding the change process, not only with respect to themselves and their role as change agents but also as it relates to the members of the organization (Calabrese, 2002).

These concepts seem to be recognized worldwide since great attempts have been made in the UK and in many other countries to produce programmes of leadership development opportunities (Ribbins, 2003). Significant examples illustrating the global recognition of the need for effective leadership development are also provided by Bennett (2004), who describes the attempt of four governments to introduce leadership development programmes for principals and other school leaders.

Global and international trends in educational policy have created leadership contexts that are to a great extent alike (Dimmock, 2003). Thus, many governments have common expectations from their leaders, such as to be more proactive in leading and managing school resources so to improve the performance of staff and students. As a result, governments of countries such as Australia, Hong Kong, China, Singapore, the U.K and the U.S.A, not only promote similar models of principal development aimed at school improvement, but also encourage visits and exchanges between principals (Dimmock, 2003).

On the other hand, Ribbins (1996 in Ribbins, 2003) points out that programmes and policies for leadership preparation and development must be aware of the importance of variations due to specific contextual and cultural factors. He therefore suggests that it is possible to employ similar methodological instruments, procedures and approaches for leadership preparation and development, in different cultural contexts; however these should be applied with care and respect to the cultural uniqueness of each country. This notion is particularly appropriate for the situation in Cyprus, where school leadership is very different from other countries.

Fullan (2002b) raises the issue of “learning in context” (p.10) as particularly important for the development of effective change leaders. This occurs when leaders are asked to examine and give solutions to problems, as these exist in their own context, the setting where they work. According to Fullan, this kind of learning is more specific and improves not only leadership but also the organization and its context. Fullan (2002b) suggests that to achieve this kind of learning “there needs to be many leaders around us...leaders at many levels” (p.12). This seems to be reinforcing the need for distributed leadership, which has been discussed earlier, and in brief encourages the adoption of leadership roles by different members of the organization, other than the headteacher.

Fullan (2002b) also identifies another important issue for leadership to be effective, which can be very closely related to the situation in Cyprus. He claims that leaders, to be able to deal with complex problems and achieve sustained change, need at least ten years of “cumulative development on the job” (p. 12). The situation in Cyprus, as discussed earlier, is that most headteachers are promoted very late, and have to leave the headship position after five or six years of experience. It appears that there is not enough time for them to “learn in context” and when they are experienced enough and probably able to deal with complex issues of change they need to leave.

In general, professional development, involving ongoing education, training and development of leaders’ professional knowledge and skills, is widely accepted as fundamental to the improvement of organisational performance and, therefore, as a core task of management and leadership (Bolam, 2002). It is therefore important for this study to investigate whether the headteachers of Cyprus have had sufficient training provided to them with the necessary elements to lead schools and more importantly to lead change. It

would also be important to have an insight into their perceptions about their training and how efficient they perceive it is for their role as change leaders.

SUMMARY

This chapter has discussed the main theoretical and conceptual frameworks of the study. More specifically it has discussed the relationship between leadership and management showing that both are important and should coexist in an organization. However, this study focuses on the role of leadership as it is perceived as more appropriate to deal with change and respond to policies. This chapter has then analysed the literature on leadership styles. The discussion has particularly focused on transformational and transactional leadership styles which are the main styles under investigation in this study. Passive leadership has also been brought into the discussion. Transformational leadership is concerned with leaders possessing attributes of vision, high expectations, intellectual stimulation, individualized support, modeling behaviour, use of structures of shared decision making and creating cultures of collaboration within the organization. Transactional leadership uses contingent reward as the way to obtain compliance, as well as management by exception. Passive leadership consists of passive management by exception and laissez faire and is absence of leadership with leaders being unconcerned with what is going on in the organization. The literature review has also referred to the relationship between leadership and effective change implementation. Transformational leadership has been found to be a more effective leadership style to use, especially when the leader needs to cope with situations of change, since it produces followers' satisfaction and can thus lead to their commitment to achieve organizational goals. However, other studies maintain that both transformational and transactional leadership are necessary within an organization suggesting that transactional leadership can be effective particularly relating to contingent reward. This study therefore will attempt to identify whether headteachers of Cyprus use

transformational or transactional practices when leading change. In addition, issues of followers' resistance have also been raised in the literature review. A number of scholars tend to agree that leadership has the capacity to influence employees' perceptions of change and help them overcome the feelings of frustration. Finally, the importance of leadership training has been highlighted since this study is also concerned with whether headteachers possess appropriate knowledge and training in order to carry out their role as leaders and change agents effectively. The literature points out the need for adequate and effective training which will enable leaders to respond to changes they are facing.

CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY

This chapter identifies the research methodology and methods used in order to investigate the research topic and address the research questions. For the purposes of this study a survey, along with interviews and document analysis were used. These have been conducted with a sample of headteachers and teachers from primary schools in Cyprus. Instrumentation included questionnaires distributed to headteachers and teachers, interviews conducted with them and documentary analysis which included minutes of staff meetings. This chapter analyses the construction of the questionnaire as well as that of the interview schedule. It also discusses the data analysis and refers to a number of issues that the study was concerned with such as ethical considerations, reliability and validity.

RESEARCH PARADIGMS

Prior to discussing the design of this research, in terms of methodology and methods, it is important to discuss the paradigms on which the research has been based. Several paradigms have been presented through time, but not all of them will be discussed in this chapter (see Burgess et al., 2006; Cohen et al., 2007). The two most widely debated over the years seem to be positivism and interpretivism.

Positivism is sustained by the principle that knowledge is based on making sense of experience and can only be obtained through observation and experiment and the methodological processes used by positivist researchers are usually quantitative (Cohen et al., 2007). The positivist approach is concerned with assumed certainties and “reliable facts”, which leave less room for doubt (Burgess et al., 2006, p. 54). Personal opinion, inferences, or preferences do not fit in this approach (Robson, 1993).

As an alternative to positivist approaches interpretive approaches argue that “...there are no absolutes, but all phenomena can be studied and interpreted in different ways, mainly

because people and situations differ, and realities are not abstract objects but depended on the inter-subjectivity between people.” (Burgess et al., 2006 p. 55). According to Cohen et al. (2007), interpretivism is based on the principle that the world is constructed by people who act intentionally and creatively. Situations and behaviour are fluid and change over time being affected by the context within which they exist. As a result there are multiple interpretations of events and situations. Interpretivist researchers are less concerned with numerical data and results which can be generalized so as to form new theories. The focus of their studies is mostly how particular people act within particular contexts and what the reasons for these particular actions are. Therefore, interpretive researchers employ qualitative methods such as semi-structured or unstructured interviews where they have the opportunity to further explore and explain the findings about the subjects of the study.

Different research paradigms are suitable for different research purposes and questions (Cohen et al., 2007). Therefore, the researcher has made her choice of research traditions having in mind the aims and objectives her research is designed to achieve and the political agenda this research aims to serve. This study will investigate and explain the behaviour of headteachers when they are expected to achieve particular changes in their schools. It is also expected to explain how this behaviour affects teachers’ responses to these changes. It is obvious that this study aims to investigate and understand human behaviour under specific circumstances and in certain contexts, as the interpretive approaches suggest. Although the topic of leadership styles and their effect on followers’ behaviour has been widely studied (see literature review chapter), it is believed that studying a similar topic in a different context and with different subjects will provide some very interesting, and possibly different, results.

As discussed above, the research is more closely related to interpretive approaches. However this study uses both quantitative and qualitative methods. Quantitative methods,

which are usually used by positivist researchers, provide the researcher with the opportunity to collect data from a larger sample and therefore, although the aim is not to generalize results, provide a more valid answer to the research questions. Qualitative methods on the other hand, which are more frequently used by interpretive researchers, are perceived as necessary for this research since studying human behaviour is too complex to do by using quantitative methods alone. According to Cohen et al., (2007, p. 21) “actions are meaningful to us only in so far as we are able to ascertain the intentions of actors to share their experiences. A large number of our everyday interactions with one another rely on such shared experiences”. This study aims to understand human experiences within the context they exist. Further exploration of the methodology and methods used by this study is below.

RESEARCH METHODOLOGY

This research has taken the form of a quantitative survey in combination with qualitative research methods used to illuminate and provide further detail on the evidence obtained from the survey. According to Robson (1993) and Cohen and Manion (1994) a survey aims to describe the nature of existing conditions and to identify standards against which existing conditions can be compared and relationships between factors can be found. Similarly, Bell, (1999) states that the aim of a survey is to obtain information which then can be analysed in order to extract patterns from it and also make comparisons. What this study aims to do is to gather information on the level of transformational, transactional and passive leadership that primary school headteachers adopt when leading a particular example of change, identify the relationship, if any, between headteachers’ training and the adopted leadership styles and subsequently explore the relationship between teachers’ perceptions of their headteachers’ leadership styles and teachers’ attitudes towards change.

Robson (1993) suggests that surveys can provide an appropriate approach for those who want to study attitudes, values, beliefs and motives. In this study, quantitative methods include questionnaires distributed to headteachers and teachers. However, as already discussed above, it was important to understand the survey findings as well as the reasons why particular attitudes have been reported. Therefore, qualitative methods have also been used which include a small number of interviews, as well as document analysis, which have been conducted not only to illuminate the survey findings but also to collect information and provide evidence on aspects that could not be reached otherwise.

Similar approaches have been used by previous researchers investigating similar topics. Bass and Avolio (e.g. Bass and Avolio, 1993; Bass, 1997, 1998; Avolio et al., 1999) have extensively researched transformational and transactional leadership using survey questionnaires. They have specifically designed the Multifactor Leadership Questionnaire (MLQ) which measures the components of transformational and transactional leadership and has been widely used not only by these researchers but also by several other researchers (e.g. Seltzer and Bass, 1990; Young, 2004; Nguni, Slegers and Denessen, 2006) investigating the two leadership styles. Bass and his colleagues have concentrated their research not only on educational organizations but also on military and business organizations.

Leithwood and his colleagues (e.g. Leithwood et al., 1999; Yu et al., 2002) have also used survey questionnaires to identify transformational leadership practices, mostly concentrating on the field of educational leadership. They have also investigated how transformational leadership might affect students, followers' perceptions of leaders or followers' behaviour, like for example their commitment to change as in the present study.

In addition, a study conducted by Wilson and Mcpake (2000) in small Scottish primary schools, aimed to investigate ways in which headteachers of small schools manage change as well as to identify any significant differences in the styles adopted during the change implementation process between them and their colleagues in larger schools. For the purposes of this study, a national postal survey was conducted (863 small primary schools) in combination with 18 case-study schools where semi-structured interviews were carried out.

A case-study investigating the relationship between gender and leadership styles used, as the means of collecting data, an inventory (which can be considered similar to a questionnaire instrument) as well as semi-structured interviews and documentation (Young, 2004). Similarly, Coleman (2003) used surveys in combination with interviews in order to examine gender differences in leadership styles. Finally, Wale's (2003) study also illustrates that the combination of quantitative and qualitative research methods can be an effective way of investigating attitudes and beliefs.

Instrumentation

Prior to discussing how instrumentation was designed it should be mentioned that all means of data collection included in this thesis are in translation. Interviews were conducted in Greek, responses were provided in Greek and then transcribed into English. So the translation took place during the transcription stage. The same procedure was followed for document analysis. Minutes of staff meetings were provided by headteachers in Greek. Whole documents were not translated; only aspects that seemed relevant to this study's area of investigation were translated and categorized so as to be used where

relevant. Questionnaires on the other hand were first constructed in English, then translated into Greek and then there was a second translation back to English so as to check accuracy.

Questionnaires

Bearing in mind the approach of the study (quantitative and qualitative), the kind of data needing to be collected (demographic information, types of behaviour and attitudes) and the subjects to which the questionnaires would be addressed (primary school headteachers and teachers who have little time to provide information for research), the questionnaire has been chosen as one of the instruments suitable for data collection. According to Robson (1993) questionnaires which respondents fill in for themselves (self-completed), are very efficient in terms of saving time and effort. In addition, due to the fact that the subjects are able to respond anonymously, questionnaires can be a good means of eliciting more reliable and truthful responses (Ary, Jacobs and Razavieh, 1985).

One of the limitations of the questionnaire is the possibility of misinterpretation of the questions by the respondents (Ary et al., 1985). Questionnaires assume that the respondents understand the questions in the terms intended and that they also understand what information is required from them (The Open University, 2003). If this condition is not met then the questionnaire lacks validity. In an attempt to avoid misunderstandings, questionnaires have been piloted prior to distributing them to the headteachers and teachers, by distributing them to a few headteachers and teachers that would not take part in the final study, so as to receive feedback on how well constructed and comprehensible it is (Bell, 2002).

Another limitation of the questionnaire is the possibility of not obtaining the desired response rate (Ary et al., 1985). In such a case, low response might lead to unreliable information being collected, since this has been obtained by an unrepresentative sample of the population (The Open University, 2003). To avoid a low response, there was an attempt to distribute the questionnaires, by giving them to key teachers in the sample schools instead of posting them. These teachers would distribute them to their colleagues and then return them to the researcher. More information about anticipated problems and ways of facing them is given in a following section of this chapter.

According to Robson (1993) questionnaire items can be relatively closed or open ended. A closed item is one in which the range of possible responses is determined by the researcher and an open item is one in which the subject can decide what to say and how to say it. The questionnaires constructed for this research included closed questions. Robson (1993) suggests that closed and specific items are usually preferred over open and general ones in order to avoid possible differences in interpretation or other misinterpretations by the respondents. In addition, scale-type questions have been identified as most appropriate, since they are easier for the respondents to answer and easier to analyse for the researcher. For this question type it has been decided upon the use of the Likert scale which, according to Robson (1993), is one of the most suitable ways in which attitudes can be defined. Also, the Likert scale has been already used by several researchers investigating similar topics and proved to effectively measure attitudes and beliefs about a topic (e.g. Jantzi and Leithwood, 1996; Yu et al., 2002; Seltzer and Bass, 1990).

Constructing and piloting the questionnaire

The questionnaires for both headteachers (Appendix 3) and teachers (Appendix 4) were divided into two parts.

Part A required from both headteachers and teachers some demographic information like age, years of experience, gender and educational background. The headteachers' questionnaire additionally requested information about the headteachers' education and training with respect to leadership and management.

Part B consisted of one example of change, namely ICT implementation. Teachers and headteachers were asked to respond to questions about how headteachers lead this particular kind of change, and more specifically, what attributes of transactional and transformational leadership, as well as passive leadership, they use during the implementation. Firstly, respondents of both questionnaires were asked to state the extent of their agreement with 45 questionnaire items relating to how headteachers lead ICT implementation. Subsequently, headteachers were asked to respond to five items concerning their values and beliefs about the specific change whereas teachers were asked to respond to five items concerning their attitudes and beliefs about ICT implementation.

To construct the first 45 questions of each questionnaire, which were variables defining transformational, transactional and passive leadership (Leithwood, 1994; Leithwood et al., 1999, Bass and Avolio, 1994) a selection and combination of items used in previous studies investigating leadership styles was taken into consideration. In particular, Leithwood and his colleagues describe specific transformational leadership practices which have been used in a number of studies aiming to identify transformational forms of leadership in schools. These practices were identified to define the eight dimensions of a transformational leader cited below:

- Identifies and articulates a vision
- Fosters the acceptance of group goals
- Conveys high-performance expectations
- Provides appropriate models of behaviour
- Provides intellectual stimulation
- Provides individualized support
- Creates a productive school culture
- Develops structures to promote participation in school decisions

In addition, the principles of the Multifactor Leadership Questionnaire (MLQ), (Bass and Avolio, 1994) have been considered. These principles have been used by several scholars dealing with the subject of transactional and transformational leadership (e.g. Seltzer and Bass, 1990; Young, 2004; Nguni, Slegers and Denessen, 2006). According to Avolio et al. (1999) the MLQ distinguishes three factors of transformational leadership:

- Charismatic leadership (idealized influence and inspirational motivation)
- Individualized consideration.
- Intellectual stimulation.

They also identify two aspects of transactional leadership as follows:

- Contingent reward
- Active management by exception

They then refer to passive leadership which is identified by:

- Passive management by exception
- Laissez-faire leadership

After careful reviewing of the literature and the dimensions of transformational and transactional leadership, it has been concluded that Bass and Avolio as well as Leithwood and his colleagues suggest similar dimensions for the two leadership styles. It has thus been decided to combine both suggestions and use the most important dimensions of the two styles to construct the questionnaire for the present study. The questionnaire is constructed therefore, from the following variables which define transformational, transactional as well as passive leadership:

Transformational leadership is defined by:

1. Vision and Consensus: These two aspects have put as one since they both refer to charismatic leadership and the ability of the leader to have a vision, convince followers to accept the group goals and co-operate in order to fulfil this vision. [Questionnaire items: 1, 3, 4, 5 and 21.]
2. High expectations: Although Bass and Avolio (1994) include this variable in charismatic leadership it has been decided to measure it separately since it has been claimed that although it is an aspect of transformational leadership it can sometimes lead to negative results on followers (Fullan, 2001). [Questionnaire items: 7, 12, 18 and 42.]
3. Modelling behaviour: This variable is suggested as a separate one by Leithwood et al. (1999) and it is used as a separate one for the purposes of

this study as well. It is believed that modelling is one of the most important practices with which the leader can achieve consensus and convince subordinates to follow him/her. [Questionnaire items: 11, 13, 22, 28 and 45.]

4. Individualized support: is concerned with leaders trying to motivate their followers by caring about their personal and professional needs and try to satisfy them. It is considered an important aspect of transformational leadership by Leithwood et al. (1999) as well as Bass and Avolio (1994). [Questionnaire items: 2, 8, 23, 31, 41 and 43.]
5. Intellectual stimulation: is concerned with leaders trying to intellectually support their staff and challenge them with new ideas. It is another variable adopted by Leithwood et al. (1999) as well as Bass and Avolio (1994). [Questionnaire items: 24, 25, 33, 37 and 38.]
6. School culture and collaboration: These two variables are mentioned separately by Leithwood et al. (1999) and Bass and Avolio (1994), although they refer to the concept of culture when discussing transformational leadership, they do not use it as a separate dimension when measuring transformational leadership. For the purposes of this study it is believed that the culture a headteacher creates in a school is important in order to obtain collaborative structures among staff and willingness to achieve common goals. It is also believed that culture and collaboration are two very closely related variables, thus they are not measured separately. [Questionnaire items: 19, 20, 30, 39 and 44.]

Transactional leadership is defined by:

7. Contingent Reward: which refers to leaders trying to achieve their followers' compliance by offering rewards to them. [Questionnaire items: 14, 27, 29, 32 and 34.]
8. Management by exception: is adopted by leaders who use negative reinforcement and punishment to obtain followers' compliance. [Questionnaire items: 16, 26, 35, 36 and 40.]

Passive leadership:

9. refers to absence of leadership and means that leaders are unconcerned with everything that goes on in the organization and avoid making any decisions. [Questionnaire items: 6, 9, 10, 15 and 17.]

Questionnaire items measuring headteachers' attitudes and beliefs about change are numbers 46, 47, 48, 49 and 50 in both questionnaires.

Overall, the questionnaire for both teachers and headteachers consists of fifty items. Thirty of these items measure transformational leadership, ten of these measure transactional leadership, five measure passive leadership and five of these measure headteachers' beliefs about the specific change (with respect to the headteachers' questionnaire) or teachers' attitudes towards this change (with respect to the teachers' questionnaire). To these items, six items in the case of the headteachers and three items in the case of teachers are added asking for demographic information.

The example of change that the teachers and headteachers were given is the implementation of information technology in the classroom. This is an externally imposed

change, which allows a lot of flexibility to the headteacher and the staff in finding ways to implement it. It started in 2002 and there is not a fixed timescale within which it should be achieved.

The questionnaire was pilot tested. The pilot study aimed to try out on a much smaller scale the viability of the envisaged study (Johnson, 1994). The instruments for data collection were tried out so that the investigator could receive valuable feedback, such as how long it would take a respondent to fill in the questionnaire or to answer the questions of the interview or whether questions could easily be answered and are acceptable to the respondents.

The working context of the researcher gave easy access to the respondents, which was very important due to the limited time available and to enable asking the respondents their opinion with respect to the design of the instruments. The study was piloted in the two schools where the researcher works. The questionnaire was distributed to the headteacher of each school, as well as five teachers in each school, chosen by random sampling. The interview was not piloted as it should have been, due to the lack of time. However a short interview was conducted with each headteacher, taking more the form of an open-question conversation, where the headteachers were asked to comment on the questionnaire. During this conversation, several issues concerning the study were raised. These issues were borne in mind and the instruments were modified accordingly.

Qualitative methods

Interviews

The interview enjoys some very important advantages, when compared to the questionnaire, which have been considered very carefully before the interview was chosen as a supplementary to the questionnaire for this study. One of the most important advantages of the interview is the fact that it can be structured in a way to provide the interviewer with flexibility so they can pursue the response with the individual and ask for clarification or redefinition of the response if it appears incomplete or ambiguous (Wiersma, 1986). Also, follow-up questions to interesting responses can be very helpful, especially when investigating attitudes and trying to establish underlying thoughts or motives (Robson, 1993). According to Easterby-Smith et al. (1994), in order to investigate human beliefs, behaviours, perceptions and values it is important to employ research methods such as qualitative interviews.

However, interviewing can be time-consuming both in the time needed for preparation and the actual length of the interview (Robson, 1993). Therefore, in this study, not all subjects taking part in the research have been interviewed, only a small number of them. The sample of the interviewees has been decided to be a stratified random sample (Wragg, 1994) selected from the questionnaire sample that had agreed to be interviewed. The reason for this decision was to be able to obtain a sample of interviewees from different categories with respect to their background in training and education in leadership and therefore prevent the possibility of choosing subjects with similar characteristics by random sample.

The type of interview perceived as the most appropriate for this research was the semi-structured interview. A semi-structured interview allows respondents to express themselves at some length, but also offers the interviewer the chance to shape the interview, preventing aimless rambling (Wragg, 1994). Also, less structured interviews can give the interviewee the opportunity to talk about issues connecting their own individual and unique experiences (Burgess et al, 2006). Thus, a set of guiding questions was prepared, but the route of the interview was modified according to the responses of the interviewees.

Several studies investigating beliefs and attitudes have used the semi-structured interview as a means of collecting data (e.g. Wale, 2003; Walker and Cheong, 1996; McCormick, 1997). More specifically, Walker and Cheong (1996) suggest allowing the respondents to talk freely about their thoughts and beliefs, and as the interview progresses, more structured questions can be posed in order to fill gaps or clarify initial information. In addition, Wale (2003) proposes the use of interviewing as complementary to the questionnaire as a means of collecting data so as to explore in-depth the perceptions of a sub-set of the sample.

In this study, the headteachers' interview (see Appendix 5) took between 40 and 50 minutes, depending on the responses of each headteacher as well as follow up questions posed for further clarification. Questions 1-4 require information on headteachers' perceptions of their role, as well as their training. These aspects have not been investigated with the questionnaire and it is perceived as important to obtain information about headteachers' perceptions on these issues, since the study aims, among other things, to investigate how headteachers' training and education in leadership and management might affect their ways of leading change. Questions 5-8 request information on particular changes that headteachers have implemented in their schools, and how they have done so.

It is envisaged that headteachers will provide information on other changes other than the ones proposed in the questionnaire. Headteachers are also expected to reveal their needs and difficulties when having to implement particular kinds of changes in their schools.

The teachers' interview (see Appendix 5) took between 40 and 50 minutes depending on the responses of the interviewees. Questions 1 and 2 refer to the changes implemented in the school and decision making procedures. Questions 3 to 6 deal with teachers' perceptions of these changes and how headteachers might have affected these perceptions. They also attempt to obtain information on teachers' needs in order to feel more capable of achieving these changes and reduce their levels of resistance. Questions 7 and 8 require information on how an effective change leader should behave in order that the teachers feel more confident to participate in change implementation. Questions 9 to 12 were added in order to provide clarifications and further information on aspects included in the questionnaire and were found to need further exploration after data analysis. According to the interpretive approach, data collection and data analysis are not two separate procedures. Interpretive researchers carry out an initial data collection, analyze it and subsequently continue with further data collection to further support and explain their findings. The same was done in this study.

The questions for both headteachers' and teachers' interviews are only indicative of the conversation that took place between the interviewer and the interviewee. This was adjusted according to the interviewee's responses, thus other questions often came up during the interview.

Documentary Evidence

Documents can be important instruments a researcher can use to develop understanding of how an organization and its people communicate internally and externally and make decisions (Hope, 1994). Therefore, useful information about the role of primary school headteachers and the style they use when performing their leadership role, were extracted by analyzing school documents such as staff meeting reports.

An advantage of documentary analysis is the fact that it is an indirect technique of data collection (Robson, 1993). According to Robson “instead of directly observing, or interviewing, or asking someone to fill in a questionnaire for the purposes of our enquiry, we are dealing with something produced for another reason” (p.272). Therefore, the nature of the instrument is not affected by the fact that it will be used for research purposes. However, documents may be considered to be objective when possibly they are not (Burgess et al, 2006). It is therefore important that the use and analysis of documents be critical.

Documents used for this study are staff meeting reports. All primary schools in Cyprus are obligated to hold staff meetings once a week. These last for around forty-five minutes and deal with several school issues. All staff members have to take part and the coordinator of the meetings is usually the headteacher. Reports of what is discussed in each meeting are always held.

Staff meeting reports are the only documents created by the staff of Cypriot schools and can reveal evidence of the structures that headteachers use in order to lead schools. These reports can also provide important information on how headteachers and teachers

implement particular changes in their schools. They might even prove to contradict headteachers' responses to the questionnaires and the interviews.

Documents, as mentioned above, were used to illuminate the survey findings, either by supporting or contradicting them. Therefore, they were searched only for information related to the topic of the study which is how headteachers (and consequently teachers) lead change, for information on aspects of transformational, transactional and passive leadership, as well as headteachers' and teachers' attitudes and beliefs about change. In addition, evidence on the culture of the school and the structures that the headteacher creates among colleagues was obtained. According to Beattie (2002) staff meetings provide educators with an opportunity for sharing opinions, ideas, insights and recourses, for dealing with disagreements and conflicts, and for the continuous co-creation of shared purposes and goals.

Reliability and Validity

According to Bell, (1999) whatever procedure for collecting data is selected, it should always be examined critically to assess to what extent it is likely to be reliable and valid. Reliability and validity are considered to be constructs of the positivist research tradition, and it has been argued that their use is inappropriate in interpretive or qualitative approaches (Easterby-Smith et al., 1994). However, they are still considered to be two main issues to address when seeking to ensure authenticity, which remains an important issue for interpretive and qualitative researchers as well (Bush, 2002).

Reliability provides information on whether the data collection procedure is consistent and accurate. It provides evidence on the extent to which a procedure or method would

generate similar results if repeated (Bell, 1999). One way of measuring reliability of the instruments for data collection is using a pilot study (Youngman, 1994; Sapsford and Evans, 1984). The present study was piloted at an early stage in order to obtain information on how reliable the instruments for data collection are.

In addition, Youngman (1994) suggests that reliability in questionnaire research can be checked by comparing findings with other sources. It seemed important therefore that this study used a variety of means for data collection (questionnaires, interviews, documents) as a way of ensuring reliability. According to The Open University (2003), “The use of several methods to explore an issue greatly increases the chances of accuracy” (p.66).

As regards the interviews, when unstructured or semi-structured interviews are used (as in this study) it is difficult to ensure reliability since each respondent is treated as a different and unique participant (Bush, 2002). However, part of the evidence that interviews were reliable was provided by comparing them with the respondents’ questionnaires.

Cohen and Manion (1994) express reservations about overemphasizing reliability when designing interviews. Structured interviews are similar to questionnaires as a means of data collection and can easily provide evidence of reliability. However, unstructured or semi-structured interviews can be of greater use in interpretive research, and although they may limit the scope for assurance of reliability they enhance validity, since they assume greater diversity and regard the human element.

Validity provides information on the extent to which the data collection procedure really measures what it intends to measure (Sapsford and Evans, 1984). Concerning validity, it is very difficult to measure and cannot really be proven. After studying the ways that

indications for validity can be provided, (Robson, 1993; Bell, 1999; Cohen and Manion, 1994) it has been decided that if the instruments for data collection are approved by the supervisor and also checked by two or three colleagues, these will be accepted as an indication of validity.

In addition, triangulation is considered to be a major means of ensuring validity (Cohen and Manion, 1994). Triangulation means using and comparing two or more methods of data collection in a study. According to the Open University (2003) “the use of several methods to explore an issue” (p. 65) is recognized to be one of the main qualities that validity of qualitative research rests upon.

According to Cohen and Manion (1994) there are two main kinds of triangulation:

- Methodological triangulation (using different methods to investigate the same issue)
- Respondent triangulation (asking the same questions to different participants)

In addition, McFee (1992, cited in Bush, 2002) adds that triangulation within a method can be achieved when examining two or more viewpoints on a particular occasion. Bearing in mind the above, this study has attempted to achieve methodological triangulation by the use of different methods of data collection (questionnaires, interviews, documentary analysis) as well as triangulation within the questionnaire method by administering the same instrument not only to the headteachers but also to the teachers of the schools in order to obtain evidence on headteachers ways of leading change. A similar approach was adopted by Lee (2000, cited in Bush, 2002) who used a questionnaire survey, interviews and document analysis in order to compare findings from these methods. She also achieved

triangulation within the interview method by interviewing people of different positions in her case study college.

Robson (1994) stresses the importance of triangulation in studies based on documentary analysis, in order to limit the effect of bias since documents have been written for purposes other than research.

Sampling and Data Collection

Respondents that took part in the research were chosen by means of stratified random sampling among all Public Greek-Cypriot primary schools of the free areas of Cyprus. The total number of Public Greek-Cypriot primary schools in Cyprus is 356. However, a number of these schools are not managed by headteachers but by deputy headteachers, due to the small number of students and teachers in some schools. The government does not perceive it necessary to assign a headteacher (headteachers are paid more than deputy headteachers) to these small schools. Thus, the population of primary schools remaining to be used for sampling was reduced to around 290. From these, 95 schools were selected by means of stratified random sampling in order to conduct the survey. There was an attempt to obtain a representative sample so all schools selected were assessed against a number of criteria (see Appendix 9 for the table used for sampling). First of all it was important to have both big and small schools. Secondly it was important to have both urban and rural schools. Thirdly it was important to have schools from different districts of Cyprus. Therefore, schools were firstly categorized in districts (e.g. Nicosia, Larnaka, Limassol), then into urban and rural schools of each district, and then into big and small schools. Subsequently, there was an attempt to select a representative sample from all categories.

Thus, the sample included for example small and big urban schools in the district of Nicosia, small and big rural schools in the district of Nicosia and so on.

For each school, an envelope was prepared including one questionnaire for the headteacher and five questionnaires for teachers in the school. That made a sample of 95 headteachers and 475 teachers. It is important to note that the maximum amount of teachers in each primary school in Cyprus is no more than thirty and no less than five (in order to have a headteacher). Thus, five questionnaires distributed to each sample school, covers between 17 percent (for the largest schools) and 100 percent (for the smallest schools) of the teachers of each school. All questionnaires were attached to an envelope so that the respondents return the questionnaire sealed in the envelope. An introductory letter (see Appendix 1), explaining the purposes and importance of the study was also attached to each questionnaire. Simultaneously, consent was asked from the respondents in order to contact them for an interview. This was done by asking them to give their consent on a separate sheet which could be detached from the questionnaire and returned in a separate envelope so as to avoid having personal information on the questionnaire.

Most of the questionnaires were distributed by contact persons, so as to achieve higher response rates. These were colleagues that worked in the selected schools and were acquaintances of the researcher. Also, where possible, questionnaires were distributed personally by the researcher. Where the above were not possible questionnaires were posted. Respondents were allowed around three weeks to complete the questionnaire and return it back. It is important to note that questionnaires were distributed shortly after the Christmas holidays. This was deliberately done for specific reasons. Firstly, because it is a period with less pressure on teachers and headteachers something that could lead to higher response rate. Secondly, it was important to allow teachers to work with the headteacher

for a period of time in order to be able to respond to the questionnaire items, hence not sensible to do the questionnaire at the beginning of the school year. Finally, it was important to allow headteachers time to take particular actions on the proposed changes in order to be able to respond to the questionnaire.

Responses were received from 42 headteachers that is 44.2 per cent of the sample and 207 teachers that is 43.5 per cent of the sample. After receiving the questionnaires back, individuals from both groups (teachers and headteachers) who had given their consent for interviewing were selected. Interviews were conducted with teachers and headteachers from the same schools so as to compare their responses. However, this would inevitably lead to some ethical problems especially when teachers say something different from their headteacher. Another constraint of selecting interviewees from the same schools was the fact that only in a couple of cases have teachers and headteachers from the same schools given their consent for interview. However, this problem was overcome by contacting other teachers from the specific schools to see whether they would be willing to participate in an interview.

Interviewees were chosen by stratified random sampling (Wragg, 1994) so as to obtain a sample from different categories with respect to headteachers' training-education, as well as their ways of leading change. For this reason the interviewees were selected after the statistical analysis of the questionnaires was completed. Of course, the number of teachers and headteachers who gave their consent for interviews was 20 per cent of the respondents, therefore stratified random sampling was applied where possible. The factor of easy accessibility by the researcher was considered when selecting the sample. The final number of the interviewees came to 5 headteachers and 15 teachers, that is 3 teachers from

each school. The table below provides information on these headteachers and the teachers from their schools. Due to the small number of schools in Cyprus more information about them and the staff interviewed could not be revealed as too much linked detail could break anonymity.

Table 3.1: Information on the schools where interviews and document analysis were conducted

	Number
Rural schools	1
Urban Schools	4
Schools with less than 15 teachers	2
Schools with more than 15 teachers	3
Headteachers with no postgraduate qualifications	2
Headteachers with a Masters degree	2
Headteachers with a PhD degree	1

It should be stated that due to the fact that interviewing was voluntary, sampling was “self-selected” (McCormick, 1997) and it may not be possible to generalize the interview results. Hence, as emphasized in a previous part of this chapter, interviewing both teachers and headteachers aims to assist in illustrating and exploring in-depth their views, attitudes and beliefs as well as issues regarding headteachers’ training that could not be explored through the questionnaire.

Finally, documents were obtained from all schools where interviews were conducted. A couple of headteachers hesitated to provide their documents, however, after they were assured that these would be treated discreetly and anonymously they gave their consent.

Documentary findings were compared to interview and questionnaire findings. Important information was revealed by documents that sometimes supported and sometimes contradicted interview and questionnaire findings.

Anticipated Problems

One of the expected problems, especially by the headteachers, was the fact that they might not provide real evidence regarding their perceptions and attributes. This would be more obvious during the interviewing procedure, when the researcher was present and therefore the headteachers might be more cautious with their answers. An attempt to avoid false findings due to the headteachers' cautiousness was the collection of data by a variety of means so as to achieve triangulation. Distributing the same questionnaires to the school's staff, asking them to provide information on their headteacher, and also collecting school documents also provided information on how reliable headteachers' responses were.

An additional problem expected whilst carrying out the survey, was the possibility of a low response by the potential participants. An attempt to limit this was affected by informing the participants of the importance of the study. In addition, envelopes with postage stamps were attached to each questionnaire. Wherever possible, some questionnaires were distributed by contact persons or personally by the researcher since the researcher has easy access to a lot of primary schools in Cyprus because of her role as an English Language teacher advisor, responsible for three of the six districts of Cyprus. Consequently, the acquaintance of the researcher with a number of headteachers and teachers was an additional aid to obtaining a satisfactory response rate.

On the other hand, the acquaintance of the researcher with her subjects could be a negative factor since it could increase the problem described in the previous section: the fact that headteachers might be reserved when responding to the questionnaires, and even more in the interviews and therefore not provide real evidence about their thoughts and behaviour as leaders. Particularly they might want to draw a favourable picture of the ways in which they operate (Coleman, 2005). This problem was mediated by the very careful design of the items of the instruments so that the respondents did not have concerns about saying something wrong.

Finally, according to Hope (1994), one way to minimize resistance of the interviewee to the process of interviewing is for the researcher to help them by restating what has been said in a different way, disclosing a similar experience or asking open-ended questions. Such techniques were used so that the interviewees felt more comfortable in revealing their thoughts.

Ethical considerations

Potential ethical problems appeared at the very outset of the study. Ethical codes concerning research involving human subjects require that the participation of the individuals is voluntary and consent must be after they are adequately informed about the study (Berger and Patchner, 1994). Hence, all parties involved (headteachers and teachers of the schools taking part in the research) were informed about the objectives, the design, the methods and the educational use of the research via an introductory letter attached to each questionnaire. Participants were also asked if they were willing to participate in follow-up interviews with the researcher.

In addition, all means of data collection were very carefully designed so as not to make respondents feel uncomfortable about revealing their attitudes, behaviour and beliefs (Berger and Patchner, 1994). This is thought by the researcher to be of great importance, not only for the reason described above, but also to gain the confidence of the respondents and obtain their consent to participate in follow-up interviews and to allow the researcher to examine some of the school documents.

Confidentiality regarding the respondents' identity and their responses was assured and maintained. Protecting participants from harm, especially through guarding their privacy by anonymity is stressed by Busher and Barker (2003). In this study, the researcher needed awareness of the headteachers' and teachers' names to know who consented to contact for interview. However, all participants of the research have and will remain anonymous to the public and even when a need to refer to specific subjects during the study appeared, pseudonyms were used (Berger and Patchner, 1994).

Finally, it must be stated that prior to carrying out the research, permission from the Ministry of Education and Culture of Cyprus was gained. A letter explaining the aims and use of the research was sent (see Appendix 2) and approval was obtained.

Data Analysis

For the statistical analysis of the quantitative data, SPSS (Statistical Package for Social Sciences) was used. At first, the data was numerically coded so that a statistical analysis could be performed. Then, the following statistical values were calculated: frequency, percentage, mean, median and standard deviation. However, not all of the values mentioned above are presented in this study, only those appropriate for each case. In order to find out any differences or correlations between variables or subjects of different groups a one-way ANOVA was performed. In addition the correlation coefficients (r) were used in order to reveal whether each independent variable affects positively or negatively the dependant one.

More particularly, the following values and co-relations among variables were considered:

Headteachers' questionnaire

The headteachers' questionnaire includes three main variables: 1) Headteachers' training, 2) Headteachers' leadership styles, divided into the dimensions of transformational, transactional and passive leadership and 3) Headteachers' beliefs about change. The first variable is an independent variable, whereas the second and third ones were considered as both independent and dependent according to the relationship needing to be found. Variables 2 and 3 were firstly analyzed for frequencies, percentages, means, medians and standard deviations. It is important to note that the variable of leadership styles is subdivided into nine sub-variables which define transformational, transactional and passive

leadership. Statistical analysis for these variables was conducted individually for each of the nine dimensions.

Consequently, the relationship between the following variables was found:

- a) How training affects leadership styles (individually each of the nine dimensions and collectively for transformational and transactional leadership)
- b) How training affects beliefs
- c) How beliefs affect leadership styles(individually and collectively)
- d) How leadership styles (individually and collectively) affect beliefs

Teachers' questionnaire

The same procedure was followed for analyzing the data obtained from the teachers' questionnaire. The only difference was that there was no variable of training. Regarding the analysis of the qualitative data, which was collected from the interview and the documentary evidence, the suggested general approaches to qualitative data analysis emphasize the importance of ongoing analysis during data collection (Robson, 1993). Moreover, shortly after the interview had been completed, a session summary sheet and a document sheet were prepared. Consequently, these were used to illuminate the evidence obtained by the questionnaires.

SUMMARY

This chapter has identified the research methodology and methods used in order to investigate the research topic and address the research questions. For the purposes of this study a survey, along with qualitative research methods were used. Instrumentation included questionnaires distributed to headteachers and teachers, interviews conducted

with them and documentary analysis which included minutes of staff meetings. The table below summarizes which instrument is used in order to collect data for each of the research questions. This chapter has also analysed the construction of the questionnaire as well as that of the interview, discussed the way data was analyzed and referred to a number of issues that the study was concerned with such ethical considerations, reliability and validity.

Table 3.2: Means of data collection

Research question	Instrument for data collection
R.Q.1: To what extent do primary school headteachers of Cyprus adopt transformational transactional and passive leadership styles when implementing a particular change, namely ICT implementation?	-Headteachers' questionnaire -Teachers' questionnaire -Interviews with teachers -Interviews with headteachers -Documents
R.Q.2: What are teachers' perceptions of their headteachers' leadership styles when leading change?	-Teachers' questionnaire -Interviews with teachers
R.Q.3: How do teachers' perceptions of their headteachers' leadership style affect their attitudes towards change as well as their level of commitment to change?	-Teachers' questionnaire -Interviews with teachers
R.Q.4: What are primary school headteachers' attitudes and feelings towards this particular kind of change?	-Headteachers' questionnaires -Headteachers' interviews -Documents
R.Q.5: What is the relationship, if any, between headteachers' attitudes towards ICT implementation and the leadership styles (transactional transformational or passive) they adopt?	-Headteachers' questionnaire -Interviews with headteachers
R.Q.6: What is the relationship, if any, between headteachers' educational background in general and educational background in leadership and management with their leadership styles and beliefs about change?	-Headteachers' questionnaire -Interviews with headteachers
R.Q.7: What are the headteachers' perceptions about their training for headship and for leading change?	-Headteachers' interviews
R.Q.8: What needs might headteachers have when leading change?	-Headteachers' interviews

CHAPTER 4: DATA ANALYSIS

This chapter analyses the findings of the study. It firstly deals with headteachers' data. Headteachers' questionnaires are analysed and findings are supported or contradicted by interviews and documents where possible. Teachers' data is presented in the same way. In addition, correlations and ANOVA analysis of the several variables of this study are conducted. Headteachers of this study are found to use more transformational leadership styles rather than transactional or passive ones however possessing higher levels of some aspects of transformational leadership and lower levels of others. They also reported dissatisfaction with their training for headship and define a number of deficiencies and needs which possibly act as drawbacks for them using higher levels of transformational leadership practices. Teachers tend to agree with headteachers' responses, however with some difference in the mean of each variable. Means are defined as close when the difference is less than 0.40 and very close when the difference is less than 0.20.

HEADTEACHERS' DATA

Headteachers' data were obtained by questionnaires distributed to the headteachers, interviews conducted with headteachers and school documents which included minutes of staff meetings. Statistical analysis was performed on the 42 questionnaires obtained from headteachers in order to find out frequencies, means and standard deviations about the headteachers' perceptions of the leadership styles they adopt when leading ICT implementation. Pearson correlation was also conducted so as to define relationships existing among variables. Finally, an ANOVA test was used in order to find out whether particular variables of the study (headteachers' training and beliefs about change) affect other variables (headteachers' leadership styles). Findings from the questionnaire analysis are cited and explained below. Interview and document findings are used to support or

contradict questionnaire findings and also to provide more detail to aspects under investigation, such as headteachers' views about their training, possible constraints they might face during ICT implementation and information about how they lead implementation of different kinds of changes other than ICT implementation which was asked about in the questionnaire.

From the 42 headteachers who completed the questionnaire 12 were men and 30 were women. Among them there were 23 headteachers who had between 1 and 5 years of experience in the position of a headteacher, 15 headteachers who had between 5 and 10 years in the particular position and 4 who had more than 11 years of experience as headteachers. With respect to their educational background, 29 headteachers had only their basic education which included a bachelors degree in education, 11 headteachers had a master's degree related to education and 2 headteachers had a doctorate degree. Headteachers were also asked to provide information on their knowledge and education in issues related to leadership and management. Therefore, 1 headteacher reported to have no particular education in such issues, 28 headteachers had attended conferences and seminars related to educational leadership and management, 3 of them had attended a relative lesson at the university, 8 of them had a masters degree on educational leadership and management, 1 of them had a doctorate degree and 1 did not provide an answer. The table below makes an interesting comparison between headteachers' years of experience and their qualifications.

Table 4.1: Headteachers' educational background

1-5 years of experience			5-10 years of experience			11 and more years of experience		
General Educational background								
B.A	M.A	PhD/EdD	B.A	M.A	PhD/EdD	B.A	M.A	PhD/EdD
12	10	1	13	1	1	4	-	-
Educational background in leadership								
Lesson/ Seminars	M.A.	PhD/EdD	Lesson/ Seminars	M.A.	PhD/EdD	Lesson/ Seminars	M.A.	PhD/EdD
14	7	-	13	1	1	4	-	-

The table reveals that the headteachers who had the highest qualifications are the newest ones. Ten out of the 11 Masters are possessed by headteachers who have between 1-5 years of experience. On the contrary, none of the headteachers with more than 11 years in the position of the headteachers had further qualifications other than their basic education as teachers. It is also important to note that only 4 of the respondents had more than 11 years of experience. This, as already discussed in the introduction to this thesis, can be attributed to the fact that headteachers in Cyprus were promoted very late, therefore, at the time of writing, it is very rare to find headteachers with more that 11 years of experience.

Transformational Leadership

The findings below reveal headteachers' responses to questionnaires and interviews with respect to their beliefs about their possession of attributes of transformational leadership along with support from the documentary analysis. Questionnaire items have been grouped in order to form the six dimensions defining transformational leadership: vision, high expectations, modelling behaviour, individualized support, intellectual stimulation and school culture and collaboration.

Vision

Table 4.2: Headteachers' responses for "Vision"

Items		Strongly disagree 1		Disagree 2		Agree 3		Strongly agree 4		Mean
		%	Fq	%	Fq	%	Fq	%	Fq	
1	I am well informed about ways in which technology can be integrated.	2.4	1	9.5	4	54.8	23	33.3	14	3.19
3	I have a specific vision about how we can integrate technology effectively.	2.4	1	11.9	5	66.7	28	19.0	8	3.02
4	I communicate the aims of the specific initiative to my staff.	2.4	1	4.8	2	59.5	25	33.3	14	3.24
5	Aims and objectives of how to integrate technology effectively are set with collegial procedures and with the consent of all teachers.	2.4	1	9.5	4	52.4	22	35.7	15	3.21
21	Each member of the staff is encouraged to set his/her own individual goals of how technology can better be integrated in the classroom.	2.4	1	2.4	1	47.6	20	47.6	20	3.40
Total										3.21

Table 4.2 reveals that headteachers report having vision about ICT implementation. Answers to all items of the variable 'vision' have a relatively high mean score which is above the mid-point of the scale (2.5) and the overall mean score of this variable is 3.21. The highest percentages of the respondents have reported that they agree or strongly agree with the items defining vision. It seems that headteachers believe that they possess high levels of vision for ICT integration in the schools and are able to communicate this vision and its aims to the staff.

Findings from the interviews support these findings. Headteacher Koham reported that "every headteacher should have a vision" maintaining that "always everyone should be informed about everything that is going on in the school" in order for the change to happen.

Documents also reveal that headteachers are aware of the need for ICT implementation in the classroom and try to pass this need to the teachers during their meetings. However, differences appear to exist among headteachers with respect to the amount of time they spend on discussion at each meeting, as well as the role that headteachers adopt during the discussion at meetings. These have been attributed to several reasons which are cited and discussed in the following chapter of this thesis.

Headteachers were also asked about other changes they have implemented in their schools. Most of them mentioned the establishment of student evaluation systems, implementation of educational school programmes, creation of new labs and improvement of the school facilities. These changes were internal changes decided by the headteachers and the staff. All headteachers were found to show particular interest during staff meetings and these issues were discussed regularly, with most reference made to educational programmes.

High Expectations

Table 4.3: Headteachers' responses for "High Expectations"

Items		Strongly disagree 1		Disagree 2		Agree 3		Strongly agree 4		Mean
		%	Fq	%	Fq	%	Fq	%	Fq	
7	I have faith in my staff and expect that they will effectively integrate technology in their lessons.	-	-	19.0	8	45.2	19	35.7	15	3.17
12	I always expect from my staff to do the right thing and integrate technology effectively.	4.8	2	7.1	3	38.1	16	50.0	21	3.33
18	I expect staff to care about their professional development on how to integrate technology effectively in their classes.	2.4	1	2.4	1	40.5	17	54.8	23	3.48
42	I expect careful planning from the staff for effective integration of technology in their lessons.	11.9	5	21.4	9	45.2	19	21.4	9	2.76
Total										3.18

Headteachers' responses to all items defining the variable 'high expectations' reveal that headteachers report setting high standards for their staff in order to achieve their goals for the particular change. All the mean scores are above the mid-point of the scale with the total mean to be 3.18.

Through the documents it was found that headteachers regularly evaluated what was going on in the school and whether the aims set had been achieved in order to identify possible problems and take corrective action if needed. All school documents mention evaluation taking place every semester and discuss the fact that headteachers stress the importance of trying to achieve the schools' aims to the highest possible degree.

Modeling behaviour

Table 4.4: Headteachers' responses for "Modeling Behaviour "

Items		Strongly disagree 1		Disagree 2		Agree 3		Strongly agree 4		Mean
		%	Fq	%	Fq	%	Fq	%	Fq	
11	Teachers come to me when they face a problem about how they might integrate technology in their classes.	9.6	4	19.0	8	35.7	15	35.7	15	2.97
13	Teachers trust me and respect and support my opinion with regard to how they can achieve integration of technology in their lessons	-	-	11.9	5	59.5	25	28.6	12	3.17
22	I perform as a model to my staff showing how technology can be better integrated in teaching.	11.9	5	31.0	13	45.2	19	11.9	5	2.59
28	I am actively involved with all school activities that have to do with integrating technology in teaching.	4.8	2	16.7	7	42.9	18	35.7	15	3.10
45	I show interest and enthusiasm about integrating technology in the classroom.	-	-	2.4	1	40.5	17	57.1	24	3.55
Total										3.07

Headteachers reported possession of the transformational dimension ‘modelling behaviour’ (mean=3.07). Answers to all items have a mean score higher than the mid-point of the scale. It is worth noticing that two of the items defining this variable have a relatively lower mean compared to the rest of the items. These are item 11 (mean=2.97) and item 22 (mean=2.59). Both items are related to the headteachers’ ability to deal with ICT issues. The relatively lower mean scores could be related to the fact that, as revealed by the interviews, some headteachers feel unconfident in using ICT because they do not possess the appropriate knowledge. Headteacher Chriva admitted that:

“I am really enthusiastic about ICT integration in the classroom and I try to pass this enthusiasm to my colleagues. The problem I face is that I don’t have enough knowledge about ICT so as to be able to help teachers as much as I would like to do so”.

On the other hand, headteacher Koham perceived himself to be more than capable in using ICT saying that one of the actions he took in order to successfully achieve ICT implementation was to visit classes in order to show colleagues how to use different ICT programs. He also organized ICT training courses in the school, which he taught himself, in order to inform colleagues how ICT could effectively be implemented in different lessons.

The claim made above by headteacher Koham is justified by the school’s documents which show him being an active member of all discussions and frequently his being the first to make suggestions and bring new ideas. However, Koham seems to be an exception to the majority of headteachers who report lack of adequate knowledge in ICT so as to be role models for their teachers. More quotations and discussion of this deficiency that headteachers have follow later in this chapter as well as in other chapters of this thesis.

Individualized Support

Table 4.5: Headteachers' responses for "Individualized Support"

Items		Strongly disagree 1		Disagree 2		Agree 3		Strongly agree 4		Mean
		%	Fq	%	Fq	%	Fq	%	Fq	
2	I am aware of the individual skills and abilities that my staff has as regards the integration of technology in their classes.	-	-	2.4	1	45.2	19	52.4	22	3.50
8	I am aware which members of my staff are more interested in technology than others.	-	-	2.4	1	19.0	8	78.6	33	3.76
23	I listen carefully to my staff's ideas about integrating technology in the class.	-	-	-	-	28.6	12	71.4	30	3.71
31	I provide individual help and support on how technology can be integrated in teaching whenever a member of my staff needs	19.0	8	35.7	15	31.0	13	14.3	6	2.40
41	I praise my staff whenever I observe that they use technology in their lessons.	-	-	9.5	4	47.6	20	42.9	18	3.33
43	I am aware of the individual needs of my staff as regards the integration of technology and provide appropriate help and resources to support these needs.	-	-	9.5	4	33.3	14	57.1	24	3.48
Total										3.36

Headteachers believe they show individualized consideration for their subordinates (mean=3.36). They seem to know their staff very well and are kept informed about their abilities, interests and needs. Particularly important is to notice the high mean score obtained by headteachers' responses to question 23 (mean=3.71). All respondents either agreed (28.6%) or strongly agreed (71.4%) with the particular statement which asked them to report whether they listen to their staff's ideas.

Findings from documentary analysis are consistent with the questionnaire findings. All headteachers show interest during staff meetings about ICT implementation and provide all

necessary means to their teachers. They are also willing to listen to their staffs' ideas about ICT implementation. Findings from headteachers' interviews also reveal the same as above.

Headteacher Koham, when asked about whether changes implemented (including ICT implementation) were based on his or his staff's ideas, stated:

“All members of the staff are always asked about their opinion. Many times, a simple suggestion that I made was turned by colleagues into something bigger and more remarkable. They added their ideas to mine... they suggested ideas that would help them improve their own work (e.g a language classroom with ICT facilities). I always seized ideas like these and tried to put them into practice immediately. Teachers feel that their own ideas not only helped them improve their own teaching practice but also helped the organization improve and move forward. They feel that they created, in cooperation with their head, something they envisaged”.

On the other hand, a relatively low mean score (mean=2.40) was obtained by headteachers' responses to the item related to whether they provide individual support whenever the staff need it (item 31). 19% of the respondents strongly disagreed with this statement and 35.7% disagreed. These answers can again be explained by the fact that a number of headteachers feel incapable of helping the staff since their own knowledge in ICT was insufficient. The low mean score for the particular statement could also be explained by the fact that headteachers claim that their responsibilities are extremely demanding and time consuming and do not allow them time to carry out their role of advising and helping their staff with their teaching needs. Headteacher Christof, when asked about the role of the headteacher, reported:

“The headteacher's role is multidimensional. It has to do with advising and guiding colleagues in pedagogical issues and also includes duties of managing and organizing the school organization. The headteacher needs to be able to find the time to combine both”.

Headteacher Koham, made similar claims and also added that:

“There is a confusion of roles. The headteacher of the school has to be responsible for everything, know everything about everything, with respect not only to his management duties but also about what happens in the classroom. He has to know about methodology, teaching etc. He also has teaching duties, something that overloads your program even more”.

Intellectual Stimulation

Table 4.6: Headteachers’ responses for “Intellectual Stimulation”

Items		Strongly disagree 1		Disagree 2		Agree 3		Strongly agree 4		Mean
		%	Fq	%	Fq	%	Fq	%	Fq	
24	Teachers of my school feel free to try new innovative methods that will help them integrate technology more effectively.	-	-	4.8	2	28.6	12	66.7	28	3.62
25	I organize demonstration lessons in my school to show examples of effective use of technology in teaching.	7.1	3	47.6	20	31.0	13	14.3	6	2.52
33	Teachers are encouraged to discuss issues with their colleagues and exchange ideas about the integration of the technology in teaching.	-	-	2.4	1	23.8	10	73.8	31	3.71
37	I give the teachers of my school the opportunity to attend seminars that will help them with the integration of technology in the classroom (during working hours).	-	-	2.4	1	23.8	10	73.8	31	3.71
38	I pass on to the staff new ideas about how to integrate technology effectively, by attending conferences, demonstration lessons or visiting other schools.	4.8	2	35.7	15	33.3	14	26.2	11	2.81
Total										3.27

Headteachers’ mean scores for the items defining ‘intellectual stimulation’ reveal that headteachers report caring about their staff’s needs for professional development. They particularly encourage new innovative ideas (mean =3.62), encourage their staff to discuss

with their colleagues and exchange ideas with them (mean=3.71) and report giving staff the chance to attend seminars and conferences whenever an opportunity appears (mean=3.71).

During the interviews, headteachers were asked to report actions taken for their staff's professional development and improvement of their abilities in using ICT in lessons. Headteacher Lendi mentioned the creation of ICT labs and the provision of supplementary material for each teacher and each class. Headteacher Koham organized training courses and visited classes to show how ICT programs could be used. Headteacher Christof developed teacher leadership by "making use of colleagues who had special knowledge or training in ICT. They organized demonstration lessons for other colleagues to watch. They provided colleagues with material, they supported colleagues".

Documentary analysis also reveals that headteachers were concerned with intellectually stimulating the teachers. Headteacher Christof, in the meeting time he devoted to ICT issues, tried to find ways in which teachers could improve their knowledge and capacities in ICT. Among others, a programme of in-service training in ICT was announced and a list of conferences and seminars that would take place throughout the year was presented. Christof also announced a time allowance for coordination between teachers, especially those who taught at the same level. In addition, he announced that teachers who had attended interesting conferences would be allowed with time during the meetings to inform colleagues about the content of these conferences. However, document analysis reveals that no presentations were actually made by colleagues. Moreover, material was provided to all colleagues and the ICT coordinator presented new software to the staff.

The issue of ICT implementation was more regularly discussed in Koham's school, where more action was taken to inform and educate the staff. It was in fact interesting to find out

that Koham's school was the only one that among its aims for the school year (internally decided) was to enhance ICT implementation (Meeting 5). Issues brought to the meetings included the creation of an ICT committee consisting of teachers with special knowledge and training in ICT (Meeting 5), the provision of new computers in the school (Meeting 6), the organization and regular use of an ICT lab (Meetings 8, 9 and 11), setting a timetable for regular and effective use of the lab (Meeting 12), the headteacher carrying out a training session in order to educate the staff about the use of the interactive board (Meeting 10), distribution of ICT material (Meeting 11) and presentations by teachers about new software provided by the Ministry of Education and Culture to all primary schools (Meetings 19, 21 and 26). The headteacher and the staff also organized an evening seminar for the parents where software that was used in the school was presented by the teachers and the headteacher.

It is interesting to notice that in the majority of the schools action taken for educating the teachers in ICT were by colleagues or other experts on the subject. The headteacher was mainly the presenter and the coordinator of the discussion. As already mentioned above, and to be discussed further later in this thesis, this could be attributed to the fact that headteachers don't possess adequate knowledge to share with the teachers. This could also explain the relatively lower means of items 25 (mean=2.52) and 38 (mean=2.81). The low means could also be attributed to the fact that headteachers' overloaded programme does not allow them time to organize or attend extra curricular events for educating the teachers.

School Culture and Collaboration

Table 4.7: Headteachers' responses for "School Culture and Collaboration"

Items		Strongly disagree 1		Disagree 2		Agree 3		Strongly agree 4		Mean
		%	Fq	%	Fq	%	Fq	%	Fq	
19	Responsibility of how to integrate technology effectively is distributed amongst all staff members and co-ordinating committees.	11.9	5	21.4	9	23.8	10	42.9	18	2.98
20	I try to encourage staff to positively view the innovative idea of integrating technology in the classroom.	2.4	1	-	-	50.0	21	47.6	20	3.43
30	I share decision making procedures with my staff as regards ways in which we can use technology to facilitate learning.	2.4	1	2.4	1	66.7	28	28.6	12	3.21
39	We collectively deal with the issue of technology in teaching during our meetings	-	-	16.7	7	47.6	20	35.7	15	3.19
44	I provide to the staff opportunities and resources for collaborative work.	-	-	9.5	4	42.9	18	47.6	20	3.38
Total										3.23

From Table 4:7 it can be seen that headteachers reported using collaboration and shared decision making when leading ICT implementation. All items defining this variable have a high mean score, with the overall mean of the variable at 3.23. The findings are supported by the interviews. Headteacher Lendi, when asked about how she successfully achieved ICT implementation, as well as other changes requiring implementation, she stated:

“The important thing is for everyone to take part in the change process. If colleagues are not involved they don't feel committed and view it positively. You cannot implement changes without informing your colleagues. I always ask for the consent and opinion of everyone, no matter who is responsible for implementing the change”.

Headteacher Koham gave his key for successful change implementation as:

“All decisions for implementing changes were taken collegially. We discussed all issues during our meetings, colleagues were informed about the potential innovations and they were always asked to give their opinion and consent”.

Documents also reveal that collaborative decision making structures are often used by the headteachers and teachers are encouraged to exchange ideas with respect to ICT implementation. All headteachers encourage teachers to visit other classes to watch colleagues carrying out lessons and share ideas.

Documents also reveal that headteachers support the development of teacher-leaders within their school. Headteacher Koham promoted the creation of an ICT committee, consisting of teachers who would voluntarily be members of this committee, possibly because they possess particular knowledge or skills on the subject. This committee would be responsible for coordinating the ICT implementation, supporting the work of other colleagues and organizing training events for the teachers.

The overall mean score for transformational leadership, including all dimensions analysed above, with respect to headteachers' responses is 3.22 which is relatively high. This means that headteachers believe that they perform as transformational leaders. It would be interesting to know whether teachers have the same opinion as their headteachers, analysis that takes place later in this chapter.

Transactional leadership

The analysis below is on headteachers' responses with respect to their possession of transactional leadership attributes. The overall mean score for transactional leadership with respect to headteachers' responses is 1.95 which is below the mid-point of the scale. This

means that most headteachers do not believe that they perform as transactional leaders. The two dimensions used to define transactional leadership are contingent reward and management by exception.

Contingent reward

Table 4.8: Headteachers' responses for "Contingent Reward"

Items		Strongly disagree 1		Disagree 2		Agree 3		Strongly agree 4		Mean
		%	Fq	%	Fq	%	Fq	%	Fq	
14	Teachers agree to integrate technology in their classes because I will be able to help them with their evaluation	31.0	13	42.9	18	23.8	10	2.4	1	1.98
27	I tell my staff to do something if they want to be rewarded for their work	69.0	29	26.2	11	4.8	3	-	-	1.36
29	I mention in my reports which members of my staff use technology in their classes effectively.	19.0	8	19.0	8	38.1	16	23.8	10	2.66
32	I reward my staff whenever I observe a good practice as regards the integration of technology.	4.8	2	26.2	11	45.2	19	23.8	10	2.88
34	Teachers of my school are treated according to their effort and the amount of work they produce.	57.2	24	31.0	13	11.9	5	-		1.55
Total										2.08

Headteachers report using low levels of contingent reward which is one of the variables within transactional leadership (overall mean=2.08). Mean scores of items 14, 27 and 34 are below the mid-point of the scale, with the highest percentage of the headteachers reporting that they disagree or strongly disagree with these statements. The particular statements describe pure transactions between headteachers and teachers in terms that headteachers clearly ask for their teachers' compliance by offering them exchanges and rewards. On the other hand, means of items 29 and 32 are above the average point, with the highest percentage of the headteachers reporting that they agree with these items. The particular

items define transactions between headteachers and teachers, however in a more discreet way.

Management by exception

Table 4.9: Headteachers' responses for "Management by Exception"

Items		Strongly disagree 1		Disagree 2		Agree 3		Strongly agree 4		Mean
		%	Fq	%	Fq	%	Fq	%	Fq	
16	I want technology to be integrated my way.	88.1	37	9.5	4	-	-	2.4	1	1.17
26	Teachers always ask for my consent before using a new way of using technology in their lesson.	16.7	7	64.3	27	16.7	7	2.4	1	2.05
35	I discourage staff from using the technology in ways that I don't agree with.	57.1	24	38.1	16	2.4	1	2.4	1	1.50
36	I watch how my staff integrate technology in their lessons and take corrective action if needed.	7.2	3	28.6	12	57.1	24	7.1	3	2.64
40	I don't hesitate to make bad comments if I observe inappropriate practices of using technology.	47.6	20	45.2	19	7.1	3	-	-	1.60
Total										1.79

Headteachers report using very low levels of management by exception (mean=1.79). Means of all items are below the average point of the scale, except item 35 which is slightly above average. Management by exception is quite opposite to transformational leadership and particularly to individualized consideration (mean=3.36) and collaborative structures of decision making (mean=3.23), where headteachers listen to their staff's ideas, bear them in mind and take decisions after discussing issues with all members of the staff. Taking into account the high mean scores of the aforementioned two variables it would be logical that management by exception would have a low mean score.

Passive leadership

Table 4.10: Headteachers' responses for "Passive leadership"

Items		Strongly disagree 1		Disagree 2		Agree 3		Strongly agree 4		Mean
		%	Fq	%	Fq	%	Fq	%	Fq	
6	My staff don't have to integrate technology in their teaching as long as no problems appear from the existing methods they use.	23.8	10	38.1	16	38.1	16	-	-	2.14
9	I don't have time to deal with any problems that teachers might face as regards the use of technology in their lessons.	21.4	9	38.1	16	31.0	13	9.5	4	2.29
10	Teachers are responsible of how to integrate technology in their lessons therefore I don't deal with this issue.	16.7	7	47.6	20	35.7	15	-	-	2.19
15	I don't care about how my staff will deal with the integration of technology in teaching.	64.3	27	23.8	10	11.9	5	-	-	1.48
17	Teachers can decide on how to integrate technology in their classes in whatever way they like without bearing in mind my opinion.	45.2	19	35.7	15	9.5	4	9.5	4	1.83
Total										1.99

Headteachers reported using low levels of passive leadership (mean=1.99). Mean scores of all items are below the mid-point of the scale with most headteachers reporting disagreement with the items. Passive leadership refers to headteachers' refusal to deal with change or take any action to implement change if the existing circumstances do not appear to cause any problems. The findings about transformational leadership discussed above reveal that headteachers are concerned with the issue of ICT implementation and how this will be conducted effectively. They have reported caring about teachers' professional development and about any problems they might face during the implementation phase.

However, a number of headteachers reported agreement with items 6 (38.1% agree), 9 (31% agree and 9.5% strongly agree) and 10 (35.7% agree) and a smaller number reported

agreement with items 15 and 17. A possible explanation for this could be the fact that headteachers' lack the appropriate knowledge to have a voice about the advantages of ICT integration in the classroom in order to be able to insist on the implementation of this initiative. A second explanation could be what headteachers reported during their interviews, that is the lack of time in order to be actively involved with ICT implementation.

Headteachers' beliefs about ICT implementation

The findings below concern headteachers' beliefs about ICT implementation.

Table 4.11: Headteachers' responses for "Beliefs about Change"

Items		Strongly disagree 1		Disagree 2		Agree 3		Strongly agree 4		Mean
		%	Fq	%	Fq	%	Fq	%	Fq	
46	ICT supports school improvement.	-	-	2.4	1	42.9	18	54.8	23	3.52
47	ICT enables teachers to be more effective.	-	-	7.1	3	38.1	16	54.8	23	3.48
48	ICT makes the lesson more interesting.	2.4	1	14.3	6	45.2	19	38.1	16	3.19
49	ICT makes the preparation of the teachers easier.	-	-	-	-	21.4	9	78.6	33	3.79
50	ICT makes the procedure of teaching and learning easier.	-	-	2.4	1	40.5	17	57.1	24	3.55
Total										3.50

Headteachers report positive attitudes towards ICT implementation (mean=3.50). They believe that ICT can help teachers and students to create a more effective and interesting learning environment.

Headteacher Chriva reported:

"I really support ICT implementation in schools. ICT is a must for modern schools. Students learn in a more fun and interesting way and teachers are given the opportunity to differentiate their lesson by using a variety of techniques and materials with the assistance of ICT. I believe that all teachers should be trained and helped in order to gain

confidence in the use of ICT in the classroom and obtain ideas about how to do so effectively”.

Correlation among variables

Correlation analysis was conducted among all variables defining transformational and transactional leadership, as well as headteachers’ beliefs about change, reveals important relationships among these variables.

Table 4.12: Correlation of variables of Headteachers' questionnaire

	Vision	Expect.	Model	Supp	Stimul.	Cult.	Tran sf.	Rew.	Except.	Passive	Trans.	Beliefs
Vision	1000	.442 **	.653 **	.569 **	.604 **	.566 **	.822 **	.203	.065	-.280	.003	.670 **
Expect.		1000	.270	.492 **	.486 **	.586 **	.673 **	.229	.054	-.104	.102	.542 **
Model.			1000	.529 **	.587 **	.477 **	.761 **	.254	-.01	-.273	.014	.560 **
Supp.				1000	.679 **	.691 **	.823 **	.207	-.009	-.351 **	-.055	.545 **
Stimul.					1000	.667 **	.836 **	.231	-.089	-.231	-.009	.548 **
Culture						1000	.834 **	.289	-.044	-.174	.068	.465 **
Transf							1000	.298	-.002	-.300	.026	.704 **
Reward								1000	.448 **	.084	.786 **	.159
Except.									1000	.154	.689 **	.047 **
Passive										1000	.599 **	-.245 **
Trans.											1000	-.012
Beliefs												1000

** = a (level of significance) < 0.05

With respect to the variables defining transformational leadership, these appear to be highly correlated with each other. The strongest correlation is that between individualized support and school culture having structures of collaboration (Pearson correlation=0.691 and $a<0.05$). It seems that the more headteachers are concerned with their staff's individual needs the more they want to create a culture of collaboration in the school based on mutual support and exchanging of ideas. Individualized support is also significantly correlated with intellectual stimulation (Pearson=0.679, $a<0.05$). Headteachers who show individualized support for teachers are also concerned about satisfying their needs for professional development so as to raise their levels of confidence and ability to implement change.

Two more dimensions of transformational leadership which are significantly correlated are intellectual stimulation and school culture (Pearson=0.667, $a<0.05$). When a culture of collaboration, support and exchanging of ideas exist, teachers feel more confident and free to ask for help and advice about possible problems they might face. Cultures of collaboration can result in teachers' professional growth through the exchanging of ideas and material about ICT implementation. It is thus reasonable that headteachers who care about the intellectual stimulation of the teachers should try to create such a culture in the school that would promote collaboration and support.

Vision is also highly correlated with all aspects of transformational leadership and especially with modeling behaviour (Pearson=0.653, $a<0.05$), intellectual stimulation (Pearson=0.604, $a<0.05$) and cultures of collaboration (Pearson=0.566, $a<0.05$). Headteacher Koham reported:

“My vision was each school I’ve worked as a headteacher to be like a workshop, where everyone would work like bees. Where fun and learning would be combined. The values of dignity and self esteem were primal for me. If teachers are satisfied with the quality of the environment they work in, where their needs are concerned and satisfied then all kinds of changes can be achieved successfully”.

With respect to the variables defining transactional leadership the only correlation existed between contingent reward and management by exception.

It is important to stress the nonexistence of correlation between passive leadership and all other variables, including contingent reward and management by exception. Passive leadership is actually absence of leadership since the headteacher does not care about participating in changing procedures, maintains things as they are and does not seek improvement. All attributes of transformational and transactional leadership represent the headteachers’ attempt to achieve teachers’ commitment and effort in order to cope with change. It is thus reasonable that these variables would not be correlated with passive leadership. In fact, passive leadership is negatively correlated with individualized support (Pearson correlation=-0.351 and $p=0.23$) which means that the existence of high levels of one leads to existence of very low levels of the other or even non-existence.

A relationship that interests this study is that between headteachers’ beliefs about change and the dimensions of transactional and transformational leadership they perceive adopting during change implementation. From the table above it appears that a significant correlation exists between headteachers’ beliefs and all dimensions of transformational leadership. All results of Pearson correlation are between 0.465 and 0.670 with the level of significance below 0.05. The strongest correlation exists between headteachers’ beliefs and their vision

for change. It seems that when they believe that the particular change will help the school move forward and improve teachers' and students' work, they form a vision about how they will achieve the particular change. Overall, the correlation results reveal that headteachers' positive beliefs about ICT implementation are positively correlated with transformational leadership (Pearson correlation=0.704, $\alpha < 0.05$).

As regards the relationship between headteachers' beliefs about change and transactional leadership, such correlation does not appear to exist. All results of Pearson correlation fluctuate below 0.159 and $\alpha > 0.05$.

ANOVA analysis of how headteachers' beliefs affect their leadership styles

ANOVA analysis has been conducted in order to investigate whether the leadership styles that headteachers adopt when implementing change are affected by their beliefs about the particular kind of change. The variable "beliefs" has been correlated with each of the six dimensions defining transformational leadership, the two dimensions defining transactional leadership, as well as passive leadership.

Table 4.13: ANOVA of Leadership Styles by Beliefs

		Df	Mean Square	F	Sig.*
VISION	Between Groups	7	31.071	11.949	.000
	Within Groups	34	2.600		
	Total	41			
EXPECT.	Between Groups	7	14.969	5.124	.000
	Within Groups	34	2.922		
	Total	41			
MODELL.	Between Groups	7	20.739	4.020	.003
	Within Groups	34	5.159		
	Total	41			
SUPPORT.	Between Groups	7	13.005	3.968	.003
	Within Groups	34	3.278		
	Total	41			
STIMULAT.	Between Groups	7	11.697	3.898	.003
	Within Groups	34	3.001		
	Total	41			
CULTURE	Between Groups	7	15.706	3.644	.005
	Within Groups	34	4.310		
	Total	41			
REWARD	Between Groups	7	9.234	1.234	.312
	Within Groups	34	7.481		
	Total	41			
BY EXCEP.	Between Groups	7	2.811	1.026	.431
	Within Groups	34	2.739		
	Total	41			
PASSIVE	Between Groups	7	8.413	1.708	.140
	Within Groups	34	4.927		
	Total	41			
TRANSFOR.	Between Groups	7	540.575	10.838	.000
	Within Groups	34	49.877		
	Total	41			
TRANSAC.	Between Groups	7	15.763	.660	.704
	Within Groups	34	23.884		
	Total	41			

*Note: Where sig.<0.05 beliefs significantly affect variables.

The table above reveals that headteachers' beliefs affect all aspects of transformational leadership. All levels of significance (sig.) of how beliefs affect each of the six dimensions of transformational leadership are below 0.05 therefore beliefs significantly affect these dimensions. This means that headteachers who possess positive beliefs about change are more likely to perform as transformational leaders than headteachers who possess negative beliefs.

On the other hand, beliefs are not shown to affect any of the two dimensions of transactional leadership. All levels of significance are above 0.05 meaning that no important causal relations between beliefs and transactional leadership exist. In other words, the levels of transactional leadership that headteachers possess are not affected, or can be explained by their beliefs about the change they are implementing. The same counts for headteachers' beliefs and passive leadership.

TEACHERS' DATA

Teachers' data have been collected by questionnaires, interviews and documents. Teachers were required to report on questionnaire items that related to their headteachers' leadership style by stating their level of agreement to the same statements posed to the headteachers, which define the six dimensions of transformational leadership, the two dimensions of transactional leadership, as well as passive leadership. Teachers were also asked to report on their attitudes towards the particular change. Statistical analysis was performed on the 207 questionnaires received from teachers in order to find out frequencies, means and standard deviations about teachers' perceptions of their headteachers' leadership styles when leading ICT implementation. Results were cross tabulated in order to identify differences between headteachers' and teachers' answers. With respect to questionnaire data, comparison between teachers with their own headteachers was very difficult to conduct. Therefore, the comparison is carried out between responses of all teachers and headteachers. However, in interviews and document analysis there is some comparison between what headteachers say and what their teachers or documents obtained from their school say. Complete tables with percentages of teachers' responses to all items of the questionnaire are provided in the appendix (see Appendix 6). Pearson's correlation was also conducted so as to define existing relationships among variables. Supplementary evidence on the aspects under investigation was obtained from the interviews. Documents were also used to obtain information on the

teachers' role during staff meetings as well as the existing relations and ways of interaction between teachers and their headteacher during discussion at meetings.

From the 207 teachers who responded to the questionnaire 38 were male, 166 were female and 3 did not provide an answer. With respect to their teaching experience, 38 teachers had between 1 and 5 years of teaching experience, 59 had between 5 and ten years of experience, 105 had more than 11 years of teaching experience whereas 5 of the respondents did not provide an answer. Finally, 103 of the respondents only had their basic training as teachers which means a bachelor degree in education, 96 of them had a masters degree in a subject related to education, 3 of them had a doctorate degree in education whereas 5 of them did not provide an answer.

Teachers' perceptions of headteachers' attributes of transformational leadership

Below, cross tabulation tables are used in order to compare teachers' responses to those of the headteachers.

Vision

Table 4.14: Cross tabulation of teachers' responses with those of their headteachers about "Vision".

Items		Headteachers' Mean	Teachers' Mean
1	The headteacher is well informed about ways in which technology can be integrated.	3.19	2.90
3	The headteacher has a specific vision about how we can integrate technology effectively.	3.02	2.64
4	The headteacher communicates the aims of the specific initiative to the staff.	3.24	2.69
5	Aims and objectives of how to integrate technology effectively are set with collegial procedures and with the consent of all teachers.	3.21	2.72
21	Each member of the staff is encouraged to set his/her own individual goals of how technology can better be integrated in the classroom.	3.40	3.01
Total		3.21	2.79

Teachers' perceptions of whether their headteacher possesses a vision about ICT implementation appear to be positive. All mean scores are higher than the mid-point of the scale with the total mean score for teachers' responses about their headteachers' vision to be 2.79. Although all mean scores of teachers' answers are lower than those of their headteachers, responses of both groups of respondents seem consistent towards an agreement in all items of this variable. Responses of both groups fluctuate above the mid-point of the scale with the highest mean score for both groups to be for item 21 and the lowest for item 3. Teachers' responses to items 3 and 4 are the lowest of this variable. These mean scores could be explained by the possibility that headteachers could have a vision about how to lead ICT implementation, however they could not be able to communicate this vision to their staff.

High Expectations

Table 4.15: Cross tabulation of teachers' responses with those of their headteachers about "High Expectations".

Items		Headteachers' Mean	Teachers' Mean
7	The headteacher has faith in his/her staff and expects that they will effectively integrate technology in their lessons.	3.17	3.06
12	The headteacher always expects from the staff to do the right thing and integrate technology effectively.	3.33	2.85
18	The headteacher expects staff to care about their professional development on how to integrate technology effectively in their classes.	3.48	2.85
42	The headteacher expects careful planning from the staff for effective integration of technology in their lessons.	2.76	2.20
Total		3.18	2.74

Teachers' responses to items combining the variable 'high expectations' are consistent with those of their headteachers' for items 7, 12 and 18. Means for these items are for both groups of respondents above the mid-point of the scale. The total mean score is also above the mid-point of the scale for both groups which means that teachers' agree that their headteachers' possess high expectations of them. However teachers' means are lower than headteachers' means. Means for responses to item 42 are different for the two groups in terms that headteachers' responses are closer to agreeing with the statement (mean=2.76) whereas teachers' responses are closer to disagreeing with the statement (mean=2.20).

Documents analysed reveal similar findings about teachers' planning. Headteacher Christof for example stressed the importance of planning only during Meeting 17. Similarly, headteacher Koham refers to the same issue during Meeting 1, and again during Meeting 7 (reference was made by the inspector) and finally during Meeting 13.

When teachers were asked about whether they feel overwhelmed by their headteachers' expectations they provided a negative answer. Teachers from Koham's school stressed the fact that their headteacher expects everyone to work efficiently and effectively, however he is the first one to give the example of hard working and most of the times he even works more than his staff.

Modeling Behaviour

Table 4.16: Cross tabulation of teachers' responses with those of their headteachers about "Modelling Behaviour".

Items		Headteachers' mean	Teachers' Mean
11	Teachers turn to the headteacher when they face a problem about how they might integrate technology in their classes.	2.97	1.88
13	Teachers trust the headteacher and respect and support his/her opinion with regard to how they can achieve integration of technology in their lessons	3.17	2.94
22	The headteacher performs as a model to the staff showing how technology can be better integrated in teaching.	2.59	1.87
28	The headteacher is actively involved with all school activities that have to do with integrating technology in teaching.	3.10	2.47
45	The headteacher shows interest and enthusiasm about integrating technology in the classroom.	3.55	2.89
Total		3.07	2.41

Teacher's responses to whether they perceive their headteacher as a role model to them are relatively low and differ from those of their headteachers in three items (item 11: mean=1.88, item 22: mean=1.87 and item 28: mean=2.47). The overall mean for teachers' responses is also lower than the mid-point of the scale (mean=2.41). It is obvious that teachers, for some reason don't feel very comfortable with asking their heads about how they

can integrate technology in their lessons and that they don't perceive their headteachers to be role models for them when it comes to ICT implementation. When teachers were asked about the particular variable they reported that the problem is that they don't feel that their headteacher possesses the appropriate knowledge in ICT in order to be able to help them. Most teachers claim that their headteacher possesses basic knowledge in ICT, however less than most of the teachers in the school.

One of the teachers interviewed reported:

“My headteacher is not very keen on using technology. She is in favour of this implementation and motivates teachers to use technology whenever possible. However, she is not capable herself to do so and show her teachers how to do so as well. Headteachers should be trained before having to implement a particular change in their schools”.

These interview findings are consistent with what headteachers said about their lack of knowledge and ability to use ICT.

In addition, documents reveal that most headteachers don't bring up the issue of ICT implementation in staff meetings very regularly, and when they do they just take the role of the coordinator of the discussion and teachers with more experience and knowledge in the subject make the presentation or provide material to the staff. For example, in Christof's school the issue of ICT implementation was only discussed in four out of the thirty-two meetings. During these meetings conferences and training courses on ICT were announced, coordinators were assigned and presentations on the subject were planned, which however never took place. In addition, at the 23rd meeting, the ICT coordinator was invited to make a presentation and inform the teachers about how they can better use ICT in their lessons.

On the other hand, teachers interviewed from Koham's school report feeling more than satisfied with their headteachers' ability and knowledge in ICT. They mention that their headteacher has knowledge on different levels and aspects of the curriculum, including ICT. They also report feeling very comfortable asking him for advice or help because they know that he is capable of helping them. Teachers in Koham's school also feel that their headteacher is very confident about his role and knows exactly how to perform it effectively.

Despite the low mean scores of teachers' answers about modelling, teachers believe that their headteachers are enthusiastic about ICT implementation and support this innovation (mean=2.89). They also respect their headteachers' opinion with respect to how ICT implementation can be achieved (mean=2.94).

Individualized Support

Table 4.17: Cross tabulation of teachers' responses with those of their headteachers about "Individualized Support".

Items		Headteachers' Mean	Teachers' Mean
2	The headteacher is aware of the individual skills and abilities that the staff has as regards the integration of technology in their classes.	3.50	2.91
8	The headteacher is aware of which members of my staff are more interested in technology than others.	3.76	3.13
23	The headteacher listens carefully to the staff's ideas about integrating technology in the class.	3.71	3.05
31	The headteacher provides individual help and support on how technology can be integrated in teaching whenever a member of the staff needs	2.40	1.79
41	The headteacher praises the staff whenever he/she observe that they use technology in their lessons.	3.33	2.52
43	The headteacher is aware of the individual needs of the staff as regards the integration of technology and provides appropriate help and resources to support these needs.	3.48	3.02
Total		3.36	2.74

Teachers' responses are consistent with those of the headteachers with respect to the factor individualized support. Both mean scores are above the mid-point of the scale with teachers reporting that they agree with five out of the six questionnaire items combining for this variable. Teachers agree that their headteacher shows individualized support for his staff, caring about their needs and interests.

Teachers interviewed from Christof's school said that the headteacher was always eager to listen to their ideas about ICT implementation and tried to satisfy all their needs concerning new material and ICT equipment. They reported that although ICT implementation was primarily initiated by the Ministry, the headteacher supported it to the maximum point by using a lot of school's funds to enhance this attempt. He even asked for the support from the parents' union. He wanted teachers to feel that they have all the necessary resources to feel comfortable and confident with achieving this initiative.

One of the teachers interviewed reported:

“The fact that I was sure that my headteacher would support my effort to use ICT in my class made me feel more confident and more eager to participate in the attempt for ICT implementation”.

This statement was supported by most teachers interviewed. In fact, one of them pointed out the different way she felt about ICT implementation with two different headteachers (she teaches in two different schools):

“I must admit that the support of the headteacher plays a significant role in the way I use ICT in the classroom. I teach in two different schools and I make a totally different use of ICT. In the first school, where I know that I have the

support of my headteacher I feel more confident to use ICT. I know that even if something goes wrong it doesn't matter because my headteacher knows how much effort I put and how much I try to succeed in this implementation”.

Teachers' responses are also consistent with those of their headteachers with respect to item 31 where both mean scores are below the mid-point of the scale. Both groups of participants report that the headteacher doesn't provide much help to the staff with respect to ICT matters. This, as already discussed previously in this chapter, could be attributed either to the fact that headteachers' schedule is overloaded with other activities or to the fact that headteachers do not possess the appropriate knowledge to help.

Intellectual Stimulation

Table 4.18: Cross tabulation of teachers' responses with those of their headteachers about “Intellectual Stimulation”.

Items		Headteachers' Mean	Teachers' Mean
24	Teachers feel free to try new innovative methods that will help them integrate technology more effectively.	3.62	2.83
25	The headteacher organizes demonstration lessons in the school to show examples of effective use of technology in teaching.	2.52	1.90
33	Teachers are encouraged to discuss issues with their colleagues and exchange ideas about the integration of the technology in teaching.	3.71	2.79
37	The headteacher gives the teachers of the school the opportunity to attend seminars that will help them with the integration of technology in the classroom (during working hours).	3.71	3.27
38	The headteacher passes on to the staff new ideas about how to integrate technology effectively, by attending conferences, demonstration lessons or visiting other schools.	2.81	2.29
Total		3.27	2.62

Mean scores cited in the table above reveal that teachers agree that their headteachers motivate them to take action about their professional development, either by attending

conferences or by exchanging ideas with colleagues. Headteachers are also reported by teachers to be open to innovation and new ideas. On the other hand, teachers' mean scores for items 25 (mean=1.90) and 38 (mean=2.29) reveal that headteachers don't take much action themselves in order to provide teachers with more opportunities for professional development.

The total mean score for teachers' responses about intellectual stimulation is 2.62 which is above the mid-point of the scale. However this mean is lower than the mean obtained from the headteachers' responses for the same variable (mean=3.27). The relatively low mean of teachers' responses about the transformational dimension called intellectual stimulation has already been explained earlier. Teachers feel that their headteachers don't possess adequate knowledge in order to support them intellectually. This explains the low mean scores of items 25 (mean=1.90) and 38 (mean=2.29) which refer to headteachers themselves organizing educational activities in the school and bringing new ideas to the teachers. On the contrary, headteachers are reported by their teachers (from data in questionnaires and interviews) to provide teachers with opportunities for training in ICT, for exchanging ideas with their colleagues and for trying new innovative methods in their lessons. Most headteachers have attempted to find a solution to their lack of knowledge by assigning the role of intellectually supporting the teachers to colleagues with particular knowledge on the subject called school-based ICT coordinators. All teachers reported that the role of these colleagues is particularly important and supportive. A teacher from Lendi's school reported:

“We have the ICT coordinator who carries out demonstration lessons, advices and helps the teachers, makes presentations during staff meetings, gives ideas about material that can be used, explains software. She has extra periods of free time to be able to deal with ICT issues...She has also set up a schedule for

demonstration lessons and opportunities for individualized support that the coordinator can provide to all teachers”.

Similar findings about the role of the school-based ICT coordinator were reported by all teachers interviewed.

School Culture and Collaboration

Table 4.19: Cross tabulation of teachers’ responses with those of their headteachers about “School Culture and Collaboration ”.

Items		Headteachers’ Mean	Teachers’ Mean
19	Responsibility of how to integrate technology effectively is distributed amongst all staff members and co-ordinating committees.	2.98	2.71
20	The headteacher encourages staff to positively view the innovative idea of integrating technology in the classroom.	3.43	2.88
30	The headteacher shares decision making procedures with the staff as regards ways in which we can use technology to facilitate learning.	3.21	2.42
39	We collectively deal with the issue of technology in teaching during our meetings	3.19	2.65
44	The headteacher provides to the staff opportunities and resources for collaborative work.	3.38	2.87
Total		3.23	2.71

With respect to teachers’ responses for the factor ‘school culture and collaboration’ there are some large differences of opinion between the teachers (see Appendix 6). However, on balance most opinions are positive about the fact that the headteacher uses structures of shared leadership and promotes group spirit and a culture of collaboration (mean=2.71). On the other hand, most teachers do not agree with the item stating that the headteacher shares decision making procedures with the staff (2.42).

Document analysis and interview findings provide important evidence on the above. Headteachers in the documents are found to use structures of collaboration and shared decision making. However, a couple of teachers interviewed reported that, although there are high levels of collaboration in their school, when it comes to decision making, in most cases headteachers, in a very prudent way, try to pass their own ideas and convince staff to follow. Hence, they might seem that they are asking for their teachers' consent, however what they are actually doing is using ways to convince them to support their suggestion.

Teachers' perceptions of headteachers' attributes of transactional leadership

The analysis below is about teachers' responses with respect to the extent to which they believe that their headteachers possess the attributes of transactional leadership. Cross tabulation tables have been used to compare teachers' responses with those of headteachers. The overall mean score of transactional leadership is 1.79 which means that most teachers do not believe that their headteacher possesses attributes of transactional leadership. This viewpoint is consistent with that of the headteachers who also believe that they possess very low levels of transactional leadership.

Contingent Reward

Table 4.20: Cross tabulation of teachers' responses with those of their headteachers about
"Contingent Reward"

Items		Headteachers' Mean	Teachers' Mean
14	Teachers agree to integrate technology in their classes because headteachers are able to help them with their evaluation	1.98	1.73
27	The headteacher tells the staff to do something if they want to be rewarded for their work	1.36	1.27
29	The headteacher mentions in his reports which members of the staff use technology in their classes effectively.	2.66	2.46
32	The headteacher rewards the staff whenever he/she observes a good practice as regards the integration of technology.	2.88	2.09
34	Teachers of the school are treated by the headteacher according to their effort and the amount of work they produce.	1.55	1.72
Total		2.08	1.85

Teachers' responses about whether headteachers possess attributes of contingent reward are consistent with those of the headteachers with mean scores for both groups being close to each other (except item 32). However, with respect to item 29, teachers' responses are spread between agreeing and disagreeing with the item (see Appendix 6). The total mean scores for both groups are below the mid-point of the scale (headteachers' mean=2.08, teachers mean=1.85) which means that teachers agree with the headteachers that they don't possess this particular characteristic of transactional leadership. A notable disagreement between the two groups appears for item 32 where most headteachers agreed that they use rewards for their teachers (mean=2.88), whereas teachers do not agree with the same item (mean=2.09). It is possible that there is confusion about the term reward, due to the fact that headteachers do not have a variety of rewards available which they can use to motivate their teachers. Teachers could possibly expect something else, other than what the headteacher already

Contingent Reward

Table 4.20: Cross tabulation of teachers' responses with those of their headteachers about
"Contingent Reward"

Items		Headteachers' Mean	Teachers' Mean
14	Teachers agree to integrate technology in their classes because headteachers are able to help them with their evaluation	1.98	1.73
27	The headteacher tells the staff to do something if they want to be rewarded for their work	1.36	1.27
29	The headteacher mentions in his reports which members of the staff use technology in their classes effectively.	2.66	2.46
32	The headteacher rewards the staff whenever he/she observes a good practice as regards the integration of technology.	2.88	2.09
34	Teachers of the school are treated by the headteacher according to their effort and the amount of work they produce.	1.55	1.72
Total		2.08	1.85

Teachers' responses about whether headteachers possess attributes of contingent reward are consistent with those of the headteachers with mean scores for both groups being close to each other (except item 32). However, with respect to item 29, teachers' responses are spread between agreeing and disagreeing with the item (see Appendix 6). The total mean scores for both groups are below the mid-point of the scale (headteachers' mean=2.08, teachers mean=1.85) which means that teachers agree with the headteachers that they don't possess this particular characteristic of transactional leadership. A notable disagreement between the two groups appears for item 32 where most headteachers agreed that they use rewards for their teachers (mean=2.88), whereas teachers do not agree with the same item (mean=2.09). It is possible that there is confusion about the term reward, due to the fact that headteachers do not have a variety of rewards available which they can use to motivate their teachers. Teachers could possibly expect something else, other than what the headteacher already

offers them and perceives as a reward. This possibility was further investigated through interviews conducted with the teachers. One of the teachers reported:

“It would be a challenge for us if headteachers were able to provide more significant rewards other than verbal praises and some evaluative essays at the end of the year. I would like them to be able to have a voice in our promotions or our salary raises. This is not good for colleagues that do not like to work too hard but for me it would be a great challenge and I believe that I would work even harder if I knew that I would earn something for what I do”.

Management by Exception

Table 4.21: Cross tabulation of teachers’ responses with those of their headteachers about
“Management by Exception”

Items		Headteachers’ Mean	Teachers’ Mean
16	The headteacher wants technology to be integrated his/her way.	1.17	1.42
26	Teachers always ask for the headteacher’s consent before using a new way of using technology in their lesson.	2.05	1.52
35	The headteacher discourages staff from using the technology in ways that he/she doesn’t agree with.	1.50	1.37
36	The headteacher watches how the staff integrate technology in their lessons and takes corrective action if needed.	2.64	1.91
40	The headteacher doesn’t hesitate to make bad comments if he/she observes inappropriate practices of using technology.	1.60	1.70
Total		1.79	1.58

Teachers have reported that headteachers do not use management by exception. All mean scores are below the mid-point of the scale and the total mean is equal to 1.58 which is very low. Teachers’ responses are consistent with those of the headteachers except for item 36 where the mean score of headteachers’ responses is higher than the mid-point of the scale and also higher than that of teachers’ responses.

Teachers’ perceptions of headteachers’ attributes of Passive Leadership

Table 4.22: Cross tabulation of teachers’ responses with those of their headteachers about
“Passive leadership”

Items		Headteachers’ Mean	Teachers’ Mean
6	The headteacher believes that staff don’t have to integrate technology in their teaching as long as no problems appear from the existing methods they use.	2.14	1.70
9	The headteacher claims that he/she doesn’t have time to deal with any problems that teachers might face as regards the use of technology in their lessons.	2.29	1.75
10	Teachers are responsible of how to integrate technology in their lessons therefore the headteacher doesn’t deal with this issue.	2.19	2.28
15	The headteacher doesn’t care about how staff will deal with the integration of technology in teaching.	1.48	1.68
17	Teachers can decide on how to integrate technology in their classes in whatever way the like without bearing in mind the headteacher’s opinion.	1.83	2.32
Total		1.99	1.95

Teachers’ responses about whether their headteachers displays passive leadership are mostly negative and reveal that headteachers do not use the passive leadership style (mean=1.95). These findings are also supported by the findings about transformational leadership cited above, where headteachers are reported by teachers to care about the initiative of ICT implementation, to be concerned with teachers’ individual needs and to take actions so as to motivate teachers participate in the implementation.

Teachers' attitudes towards ICT implementation

Table 4.23: Teachers' responses for "Attitudes towards Change"

Items		Strongly disagree 1		Disagree 2		Agree 3		Strongly agree 4		Mean
		%	Fq	%	Fq	%	Fq	%	Fq	
46	I feel confident to use technology during my teaching.	2.0	4	21.7	45	44.0	91	32.4	67	3.07
47	I like to try new methods of integrating ICT in my lessons.	1.5	3	15.5	32	44.9	93	38.2	79	3.20
48	I attend conferences or seminars in order to improve my knowledge about the integration of technology in teaching.	7.2	15	19.3	40	44.0	91	29.5	61	2.96
49	I have enough knowledge and abilities in order to use technology in my classes.	2.0	4	22.7	47	49.8	103	25.6	53	2.99
50	My school's culture encourages me to use technology in my classes.	8.7	18	26.1	54	36.7	76	28.5	59	2.85
Total										3.01

The percentages and means cited in the table above reveal that most teachers have positive attitudes towards ICT implementation. All mean scores are above the mid-point of the scale with the highest percentage of the teachers reporting that they agree with the five items combining their attitudes.

Indeed, all teachers interviewed reported being in favour of ICT implementation. They support the initiative and they try to use ICT in their lessons whenever possible. One of the teachers reported:

"I try to implement ICT in my lessons whenever possible. Of course I don't behave the same with all kinds reforms that take place in my school, because every year we are expected to do a lot but no extra time is given to us. The way I support and participate in a particular change implementation depends on how

much I believe this change will contribute to the improvement of the school unit as well as to what extent it will help me be more efficient and effective in my teaching. ICT meets these expectations that's why I participate in this implementation with great enthusiasm".

In addition, most of the teachers claim to have adequate knowledge as well as confidence to use ICT in their lessons, findings which support the questionnaire findings. There is however a number of respondents that report not feeling confident with using technology in their lessons (23.7%) and also a number of them that report lack of knowledge on the subject (24.7%). One of the teachers interviewed reports:

"I am very much in favour of ICT implementation. However, I don't feel much confident in using it in my lessons due to inadequate knowledge. I would like to be trained and have people around me who can help me".

Statements like the one above reveal teachers' needs for education and training on the change they are expected to implement. They need to be informed about the change and supported by their colleagues as well as their headteacher.

In addition to the above analysis about teachers' attitudes towards ICT implementation, correlation was conducted among variables in order to investigate whether teachers' beliefs about their headteachers' leadership style when leading ICT implementation are correlated with their beliefs about the particular change. Findings are given in the table below:

Table 4.24: Correlation of teachers' perceptions of their headteachers' styles with their attitudes towards ICT implementation

	Visi on	Expect.	Model	Supp	Stimul.	Cult.	Rew.	Except.	Passive	Beliefs
Vision	1000	,510**	,723**	,662**	,681**	,674**	,276**	,178*	-,301**	,256**
Expect.		1000	,497**	,522**	,485**	,512**	,471**	,347**	-,297**	,143**
Model.			1000	,700**	,706**	,626**	,345**	,171**	-,387**	,236**
Supp.				1000	,715**	,674**	,425**	,156**	-,357**	,312**
Stimul.					1000	,776**	,474**	,264**	-,355**	,314**
Culture						1000	,421**	,227**	-,174**	,308**
Reward							1000	,476**	-,056	,211**
Except.								1000	0,67	0,57
Passive									1000	-,057
Beliefs										1000

** = a (level of significance) < 0.05

All aspects of transformational leadership are positively correlated with teachers' beliefs about change. The dimensions of transformational leadership which are stronger correlated with teachers' beliefs about change are individualized support (Pearson correlation=312 and $\alpha < 0.05$), intellectual stimulation (Pearson correlation=314 and $\alpha < 0.05$) and school culture with structures of collaboration (Pearson correlation=308 and $\alpha < 0.05$). These findings add to the interview findings that teachers with headteachers who care for them, support them and motivate them during ICT implementation have more positive beliefs and attitudes towards the particular change

Modelling behaviour and vision are also positively correlated with teachers' beliefs (Pearson correlation=236 and $\alpha < 0.05$ and Pearson correlation=356 and $\alpha < 0.05$ respectively). The weakest correlation is that between high expectations and teachers' beliefs (Pearson correlation=143 and $\alpha < 0.05$) most probably because of the reason already discussed above, that some headteachers who have extremely high expectations from their teachers, make teachers feel pushed and overwhelmed.

With respect to the variables defining transactional leadership the only dimension which is correlated with teachers' beliefs is contingent reward (Pearson correlation=211 and $\alpha < 0.05$).

HEADTEACHERS' EDUCATION AND TRAINING

The findings below are related to how headteachers' education affects their leadership styles and beliefs about change as well as how their training on leadership and management affects the same variables. There is also analysis of the headteachers' beliefs about their training.

ANOVA analysis about how headteachers' education affects their leadership styles and beliefs about change

ANOVA analysis has been conducted in order to investigate whether the leadership styles that headteachers adopt when implementing change, as well as their beliefs about the particular change, are affected by their educational background. The variable “educational background” has been separately correlated with each of the six dimensions defining transformational leadership, with each of the two dimensions defining transactional leadership, with passive leadership and also with their beliefs about change.

Table 4.25: ANOVA of Leadership Styles by Educational Background

		Df	Mean Square	F	Sig.*
VISION	Between Groups	2	21.175	3.133	.050
	Within Groups	39	6.758		
	Total	41			
EXPECT.	Between Groups	2	4.327	0.863	.430
	Within Groups	39	5.012		
	Total	41			
MODELL.	Between Groups	2	35.518	5.959	.006
	Within Groups	39	6.296		
	Total	41			
SUPPORT.	Between Groups	2	5.621	1.146	.328
	Within Groups	39	4.903		
	Total	41			
STIMULAT.	Between Groups	2	2.934	0.643	.531
	Within Groups	39	4.565		
	Total	41			
CULTURE	Between Groups	2	1.874	0.289	.750
	Within Groups	39	6.480		
	Total	41			
REWARD	Between Groups	2	0.219	0.027	.974
	Within Groups	39	8.168		
	Total	41			
BY EXCEP.	Between Groups	2	0.048	0.017	.984
	Within Groups	39	2.889		
	Total	41			
PASSIVE	Between Groups	2	8.644	1.612	.212
	Within Groups	39	5.362		
	Total	41			
TRANSFOR.	Between Groups	2	192.979	1.4770	.241
	Within Groups	39	130.612		
	Total	41			
TRANSAC.	Between Groups	2	5.093	0.218	.805
	Within Groups	39	23.390		
	Total	41			
BELIEFS	Between Groups	2	3.120	0.732	.487
	Within Groups	39	4.262		
	Total	41			

*Note: Where sig.<0.05 Educational Background significantly affect variables.

The table above reveals that headteachers' educational background does not affect many aspects of transformational or transactional leadership other than those of vision and modeling behavior. All levels of significance (sig.) of how educational background affects four of the six dimensions of transformational leadership (high expectations, individualized support, intellectual stimulation and culture) are above 0.05 therefore educational background does not affect these dimensions. On the other hand, educational background

appears to positively affect vision and modeling behavior. This means that headteachers with a higher educational background report possession of higher levels of vision and are also better role models for their teachers.

Findings from the teachers' interviews provide a possible explanation for the aforementioned relationship. More particularly, teachers from Koham's school when asked to explain why their head is a good role model for them when dealing with change and especially ICT related, reported that the fact that he has a good educational background (he has a PhD degree) provides him with confidence as well as knowledge to perform as a model for his teachers.

Educational background is not shown to affect any of the two dimensions of transactional leadership. All levels of significance are above 0.05 meaning that no important causal relations between educational background and transactional leadership exist. In other words, the levels of transactional leadership that headteachers possess are not affected, or can not be explained by their educational background. The same counts for passive leadership.

Finally, educational background is not found to affect headteachers' beliefs about ICT implementation. Findings from headteachers' and teachers' interviews indeed reveal no differences between headteachers with a higher educational background compared to those with a lower educational background. All headteachers reported being very enthusiastic and supportive about ICT implementation regardless of their knowledge of the subject or their educational background. In addition, all teachers interviewed confirmed that their headteacher was always open to change and innovation, especially ICT related and to support them in any way they can. Most of them however stressed the fact that their headteacher did not possess much knowledge in the area of ICT.

Headteachers' training for headship

Data about headteachers' training was obtained by interviews and documents. Headteachers were asked about how satisfied they were with the training they received on leadership and management issues when they were called to carry out the role of headteacher. All of them reported dissatisfaction and frustration about the training events organized by the Ministry of Education and Culture. They firstly commented on the fact that training courses that all newly appointed headteachers need to attend during their first year of experience as headteachers are carried out after their appointment. They feel that these courses should be conducted prior to their appointment in order to prepare them in some way to perform their role effectively.

Headteacher Lendi reports:

“Seminars should take place prior to headteachers' appointment to the position. It would be better that whoever comes close to becoming a headteacher, or whoever is interested in becoming a headteacher to attend seminars or training courses. The training courses should be a prerequisite for becoming a headteacher”.

Headteacher Koham agrees and also suggests:

“It would be wise to have a kind of transitional stage. From the moment we get the promotion until we undertake responsibilities in schools we could pass from a management school, where we would be able not only to learn the theory but also to have the chance to actually work at schools, probably something like second headteachers, where we could be something like apprentices”.

Besides the training courses that headteachers are expected to attend when they are appointed to their new position, they are also called to attend one-day conferences that are organized by the Ministry of Education and Culture every year. According to the documents obtained from the headteachers, for the school year 2008-2009 they were called to attend

four conferences that were organized and presented by the school inspector. During the interviews, headteachers were asked to comment on the content of these seminars as well as the content of the training courses they attended when they were promoted. Headteachers' report feeling frustrated about the content of both training courses and seminars. They use very strong words to describe them like "It was a waste of time" or "they were useless" and "not helpful at all". They add that the content of all training events was very general, mostly based on theories already very well known, given the fact that all headteachers had to study the theoretical background of leadership and management very hard in order to pass through the stage of being interviewed to become headteachers. They all stress the need for content which offers more practical ideas on how to lead their schools. Headteacher Griky reports:

"We need help about how to apply theory in practice. We need experts to provide us with a variety of solutions which we can use to face different problems. We are interested in issues of managing the school unit, evaluating it, developing a vision for the school unit".

ANOVA analysis about how headteachers' training on leadership and management affects their leadership styles and beliefs about change

ANOVA analysis has been conducted in order to investigate whether the leadership styles that headteachers adopt when implementing change, as well as their beliefs about the particular change, are affected by their training in leadership and management.

Table 4.26: ANOVA of Leadership Styles by Training on Leadership and Management

		Df	Mean Square	F	Sig.*
VISION	Between Groups	5	8.876	1.222	.319
	Within Groups	36	7.265		
	Total	41			
EXPECT.	Between Groups	5	3.069	0.585	.711
	Within Groups	36	5.244		
	Total	41			
MODELL.	Between Groups	5	14.893	2.178	.078
	Within Groups	36	6.836		
	Total	41			
SUPPORT.	Between Groups	5	9.235	2.127	.084
	Within Groups	36	4.342		
	Total	41			
STIMULAT.	Between Groups	5	2.063	0.428	.826
	Within Groups	36	4.822		
	Total	41			
CULTURE	Between Groups	5	1.594	0.231	.946
	Within Groups	36	6.903		
	Total	41			
REWARD	Between Groups	5	4.951	0.606	.696
	Within Groups	36	8.173		
	Total	41			
BY EXCEP.	Between Groups	5	0.277	0.090	.993
	Within Groups	36	3.094		
	Total	41			
PASSIVE	Between Groups	5	7.310	1.386	.253
	Within Groups	36	5.274		
	Total	41			
TRANSFOR.	Between Groups	5	131.665	0.983	.441
	Within Groups	36	133.931		
	Total	41			
TRANSAC.	Between Groups	5	3.112	0.124	.986
	Within Groups	36	25.190		
	Total	41			
BELIEFS	Between Groups	5	2.749	0.623	.683
	Within Groups	36	4.409		
	Total	41			

*Note: Where sig.<0.05 training on leadership and management significantly affect variables.

The table above reveals that headteachers' training or education in educational leadership and management does not affect any aspects of transformational, transactional or passive leadership. All levels of significance (sig.) of how training on leadership affects the six dimensions of transformational leadership are above 0.05 therefore the aforementioned independent variable does not affect these dimensions. In addition, training or education in leadership is not found to affect any of the dimensions of transactional leadership. All levels

of significance are above 0.05 meaning that no important causal relations between training on leadership and transactional leadership exist. The same is true for passive leadership.

On the other hand, interview findings reveal that headteachers who possess a post graduate degree in leadership and management when asked to comment on how important and helpful their degree proved to be when having to carry out the role of the headteacher, reported that it proved quite helpful for them especially when it came to interpersonal relationships.

Headteacher Griki reported:

“My masters’ degree covered the theory of the headteacher’s role. Although it was obtained by a British university where the context is different, it has helped me in choosing a leadership style and also in improving my interpersonal relationships. I was influenced by theories about what is perceived to be effective or not. It also helped me with my personal development and raised the levels of my self esteem. It was a good asset for me so as to feel more confident and sure about what I was doing. It also offered me a kind of prestige when dealing with other colleagues as well as sub ordinates. They seem to respect you in a different, better way when you have a post graduate degree”.

Headteacher Lendi expressed a similar opinion about her Masters’ degree:

“The masters’ degree helped me a lot. I learnt about how to carry out my role effectively, ways of better communicating with the staff, attributes of a good headteacher, how I should behave with stakeholders etc”.

Finally, training or education in leadership is not found to affect headteachers’ beliefs about ICT implementation. The findings are reinforced by findings from headteachers’ interviews. All headteachers reported being very enthusiastic and supportive about ICT implementation regardless of their training in leadership and management. All teachers interviewed

confirmed that their headteacher is always open to change and innovation, especially ICT related and support them in any way they possibly could.

Training in particular changes to be implemented

Headteachers' interviews revealed that headteachers lack training and knowledge on the content of particular changes they are called to implement as well as how they can most effectively implement them. Particularly talking about ICT implementation, all headteachers, except one, reported feeling unconfident using ICT and therefore unable to support their staff as they wanted to.

Headteachers' lack of training and knowledge in particular changes and especially in ICT implementation could justify the relatively low mean scores in the questionnaire items 11 and 22 which refer to teachers asking their headteachers for help with ICT implementation and also headteachers' being role models for them. The mean scores of the teachers' responses were even lower for the same items. One of the teachers interviewed reported:

“My headteacher is not very keen on using technology. She is in favour of this implementation and motivates teachers to use technology whenever possible. However, she is not capable herself to do so and show her teachers how to do so as well. Headteachers should be trained before having to implement a particular change in their schools”.

Documents also reveal that headteachers very rarely, make presentations in the meetings relevant to issues about ICT implementation or other changes that they implement in their schools. Most presentations are carried out either by experienced colleagues or subject co-ordinators.

HEADTEACHERS' DEFICIENCIES AND NEEDS WHEN LEADING CHANGE

Headteachers reported various obstacles to their efforts in implementing different kinds of changes and innovations in their schools. The most important one, mentioned by all headteachers was the highly centralized educational system of Cyprus. Given that all important decisions about educational policies are taken by the Ministry of Education and Culture, headteachers are not left with much flexibility to decide and implement changes in their school. One of the innovations that most headteachers report adopting is the implementation of various school programmes such as Comenius, Ecological Schools, CLIL etc. School programmes are internally decided innovations, the aims of which are usually supposed to be fulfilled within one school year. Documentary analysis of the four schools reveals that headteachers and the rest of the staff very often deal with such issues in their meetings. In addition, headteachers when interviewed reported to be in favour of school programmes especially because most of them are related to the curriculum and they can be fulfilled without the teachers having to put much extra effort or spend extra time.

Another obstacle that headteachers report facing when they want to implement a particular change in their school is the fact that they are very regularly moved from one school to another. Headteacher Griky reported:

“The fact that in my three years of experience as a headteacher I changed three schools did not allow me much of a choice to implement changes in the schools that I worked, especially long term ones. I also worked in different types of schools, small and big ones, urban and rural ones. The needs of each school and the changes you need to implement are different”.

The statement above, besides revealing the frustration of the headteachers having to move from school to school, also provides an explanation for what was said above about headteachers preferring to implement short term changes over long term ones. For most of them, their future in a school is uncertain, especially when they are in their first years of working as headteachers.

The statement that headteacher Griky made above reveals an additional concern of the headteachers when thinking about implementing a particular kind of change. This is the different types of schools where they serve. As Griky argued, different types of schools have different needs and changes to be implemented. She goes on and adds that the size of the school, the kind of the students, the socioeconomic level of the parents, the colleagues you need to support you, play an important role when you want to implement a particular change in your school. Headteacher Lendi agrees and maintains that:

“All aims set about a particular change should facilitate the needs of the particular school organization. They should facilitate school improvement and students’ quality of learning. Some innovations could be appropriate for one school and inappropriate for another”.

Finally, headteachers’ lack of training on particular changes they want to implement is another constraint they admit facing. Most of the headteachers admitted that they want to be more active participants in the process of implementing ICT integration in the classroom, as well as other changes. Headteacher Lendi, when asked about other changes that she has implemented in her school admitted:

“I want to establish an evaluation system involving students and parents. However, I don’t feel much confident and secure about implementing this. I don’t have the appropriate knowledge”.

SUMMARY

This chapter has analysed the data of the study. It firstly presented data from the headteachers’ questionnaires, supported or contradicted by interview and documentary data. Data from the teachers’ questionnaires and interviews were used to illuminate how headteachers lead ICT implementation. Correlations and ANOVA analysis of several variables were conducted. Data about headteachers’ training and development needs for leading change were identified. Headteachers of this study were found to use more transformational leadership styles than transactional or passive. They reported using all dimensions of transformational leadership however there were differences in magnitude of the headteachers’ agreement with the dimensions. These differences can be attributed to a number of factors which are discussed later. In addition, all aspects of transformational leadership were found to correlate with headteachers’ beliefs about change. With respect to headteachers’ educational background and training, although this was found to correlate only with vision and modelling behaviour, headteachers reported that having knowledge in leadership and management would be helpful for them. They also reported dissatisfaction with their training for headship and pointed out a number of needs that would enable them lead change more effectively. Teachers tend to agree with headteachers’ responses, about being more transformational than transactional, however with some difference in the mean of each variable. Finally, all aspects of headteachers’ transformational leadership were found to correlate with teachers’ attitudes towards change.

CHAPTER 5: ANALYSIS AND DISCUSSION OF THE FINDINGS

Despite the extensive research on transformational leadership, on the positive effects this leadership style might have on followers' behaviour during change implementation, very little research has been conducted to examine transformational leadership in the context of organizational change (Wanous et al, 2000). The same appears to be true for transactional and passive leadership since no relevant research papers were found when investigating the literature. This study has attempted to address this research gap by investigating the level of transformational, transactional and passive leadership that headteachers of primary schools of Cyprus possess when leading a particular government policy, which is the implementation of ICT in the classroom. It has also attempted to provide evidence on teachers' attitudes towards this particular change and relate them to their headteacher's leadership style. This study has also obtained evidence on headteachers' feelings and beliefs about the particular change as well as difficulties they face during the implementation along with aspects of headteacher' training and how this can affect transactional and transformational leadership. In this chapter the findings of this study are analysed and discussed, against each of the research questions (R.Q.),

R.Q.1: To what extent do primary school headteachers of Cyprus adopt transformational, transactional or passive leadership styles when implementing a particular change, namely ICT implementation?

R.Q.2: What are teachers' perceptions of their headteachers' leadership styles when leading change?

TRANSFORMATIONAL LEADERSHIP

Transformational leadership is perceived as a form of leadership which can facilitate change because of its potential to build high levels of commitment to changing circumstances as well as for fostering capacity building (Jantzi and Leithwood, 1996). In addition, significant relationships have been reported between teachers' sense of self-efficacy and the leadership practices exercised by headteachers such as buffering and delegating, modeling behaviour, providing contingent reward, individualized support and inspiring a sense of shared purpose (Leithwood et al., 2002). Most of these practices are incorporated in transformational leadership. This study has found that indeed transformational forms of leadership can enhance the commitment of followers to change. Yu et al. (2002), after a study on transformational leadership on teachers' commitment to change in Hong Kong maintain that transformational leadership may be a universal form of leadership. They support that while the magnitude of its effects may vary in different cultures, the same patterns and relationships (e.g. among leadership practices or between leaders and followers) are found.

This study has found that headteachers of primary schools of Cyprus demonstrate moderate levels of all dimensions of transformational leadership. Headteachers' responses were above the average mid-point in all six dimensions (overall score for transformational leadership=3.22). Teachers' responses were also above the mid-point of the scale, even

though lower than those of their headteachers in each of the six dimensions (overall score for transformational leadership=2.66). The differences in the means could imply that teachers have higher expectations from their headteachers meaning that there is always space for improvement on behalf of the headteachers towards an even more transformational leadership style. It would be important to note that headteachers as well as teachers responded more positively to items that don't imply headteachers' actual involvement in the changing process. For example, headteachers are reported to promote the particular change, encourage the staff to participate, try to find ways to inform the staff about the initiative and support collaboration, however, when it comes to them actually getting involved in the process either by modeling appropriate behaviours or by helping their staff and providing them with ideas, a number of headteachers appear to be incapable of doing so. This kind of behaviour could be attributed to a number of factors. Below there is further discussion of the findings about each dimension of transformational leadership.

Vision

Vision has been regarded as an essential component of effective leadership for the last 20 years (Bush, 2008). Sarros et al. (2008) found articulated vision to be the transformational leadership factor that has the strongest positive relationship with climate for organizational innovation. Similarly, Damanpour and Schneider (2006) report that visionary leaders create a culture of change which facilitates innovation. In addition, Hay/McBer, found that authoritative leadership, which rests upon mobilizing people towards a vision, positively affects climate and performance (Goleman, 2000). The findings of this study reveal that teachers of Cyprus are not very clear about their headteachers' visions. Headteachers of this study reported that they possess high levels of this dimension. However there are a number of teachers (see Appendix 6) who are sceptical about their headteachers having a vision

about ICT implementation and being able to communicate this vision to the staff. Although interviews with headteachers and teachers, as well as documents have revealed that headteachers do have a plan about how to better implement this particular change and try to bring this issue to staff meetings and share it with the staff, questionnaire findings seem to reveal that for a number of reasons headteachers are not able to communicate this vision to their staff. One of the reasons could be the fact that they have very little time at staff meetings and many issues to discuss. When the documents were analyzed, it was obvious that headteachers' agenda is full in almost every meeting. Consequently, although the issue of ICT implementation was often brought to meetings the time allocated to it was very limited. Research contradicting about the positive effect that vision has on change implementation, reveal that vision does not always have a positive influence on followers (Rafferty and Griffin, 2004). Sarros et al. (2008) attempt to justify the findings discussed above and claim that to be able to form a vision is one thing but to have it accepted by the followers is another. Similarly, Fullan (2001) argues that authoritative leaders, that is leaders with clear visions and good ideas, can only be effective when they manage to mobilize their followers to commit to them. It is thus important that leaders should be able not only to have a vision about implementing particular changes but also to share it with staff and involve them in the process of developing it. It is also important to mention that all headteachers interviewed reported having a vision about other changes they implemented or wish to implement. Most of them wanted to establish a new student evaluation system and also implement particular educational programmes. These issues are also discussed at staff meetings, however again the time allocated to each issue is limited. Headteachers reported frustration about their lack of knowledge of how to implement the changes they wanted to implement. This deficiency of the headteachers is further discussed later in this chapter.

It is also important to discuss the fact that most headteachers, when asked to discuss other changes they implement at school gave similar answers and only referred to minor changes they could implement. This could be attributed to the fact that headteachers in Cyprus do not have much freedom to form new policies for their schools. The educational system in Cyprus is particularly centralized and most decisions for important reforms are taken by the government. Headteachers “have to” agree with this policy and they have the flexibility to only implement minor changes at their schools. These findings are in line with Bolam et al’s (1993) findings who, after a study of 12 “effective schools”, concluded that most heads articulated very general and not very remarkable visions. They similarly attributed these findings to the fact that headteachers need to be in line with the existing educational system, the government and its rules about the curriculum and how schools should function. According to Bush (2008) in centralized systems leaders are free to pursue their own values only if they are consistent with those of the government.

In this study, vision was also found to be highly correlated with all other dimensions of transformational leadership. It can be inferred that headteachers who possess a particular vision of how to make change happen seem to find ways of realizing this vision by providing opportunities for professional development for the teachers, being role models for them and creating a culture of collaboration in the school. Fullan (2001) maintains that visionary leaders are underpinned by emotional intelligence, thus have the capacity to deal effectively with others. The importance of leaders’ possessing vision of how to improve their schools and make change happen effectively is stressed by Orr et al. (2008) who conducted a study about the role of leadership in low performing urban schools. They found that the Principals of such schools “lacked a clearly articulated vision of their schools and the capacity to shape and implement a vision coherently, consistently and passionately” (p. 283).

High expectations

This study found that headteachers reported possessing high expectations. Teachers agree with their headteachers that they are expected to do their best when implementing the particular change. The only major difference was about whether headteachers expected careful planning from the staff for effective integration of technology in their lessons (headteachers' mean=2.76, teachers' mean=2.20). This difference could be explained by the fact that planning for primary teachers in Cyprus is obligatory only in terms of setting general objectives for all the school subjects and planning the main activities they are supposed to carry out in a lesson. Teachers do not have to plan how they are going to implement the different changes a school goes through. Therefore, the headteacher might be expecting the teachers to do their planning, but he cannot ask them to do so since this is not part of the teachers' responsibilities. This was also obvious from documents, where only a few times headteachers appeared to talk about the issue of planning.

It is also important to discuss that teachers of this study were not found to feel frustrated or overwhelmed by their headteachers' expectations. Fullan (2002b) maintains that headteachers who have high expectations from their followers can destroy organizational climate. Such conclusions were not found in this study. On the contrary, teachers reported being satisfied by their headteachers' expectations. Their headteachers very rarely pressed them and then in a very discreet and positive way. According to Levin and Fullan (2008) positive pressure for higher performance, pressure that motivates, is reasonable if accompanied by resources for capacity building. Headteachers are concerned with involving all members of the staff in the change procedure and care about providing all the appropriate resources to them so as to improve their capacities and motivate them to use ICT efficiently and effectively. One of the constraints that headteachers could possibly face

when trying to build capacity of the staff could be their lack of knowledge on the subject. They however attempted to overcome this problem by taking advantage of members of the staff who have extra knowledge on the subject.

Modeling behaviour

Modeling behaviour is one of the dimensions of transformational leadership which was found in this study to be correlated with teachers' beliefs about change. Jantzi and Leithwood (1996) found that "doing good work on behalf of one's school, and being seen to do such work, is likely to be the most powerful strategy for positively influencing teachers' perception of one's leadership" (p. 531). This study has found that this perception influences teachers' beliefs about change. It would therefore be important that headteachers perform as role models to their followers in order to improve their attitudes towards change and enhance commitment. Although headteachers of this study responded positively to questions related to their enthusiasm and attitudes towards ICT implementation, their responses on how much they provide practical help to their staff, showing them how ICT can better be integrated in the classroom were not so encouraging. Teachers on the other hand reported even more negative answers about their headteachers being role models to them with respect to ICT implementation. Interview findings and document analysis reveal that headteachers often use "representatives", such as the ICT coordinator, to inform the staff about ICT and to help them with problems that might arise. Most teachers point out their disappointment that their headteachers do not provide much modeling and help to them, mostly because of the fact that they are not able to do so due to lack of knowledge of the subject. On the other hand, it is important to note that despite the fact that modeling was found to influence teachers' beliefs about change, teachers still demonstrate positive beliefs about ICT implementation. This could be attributed to the fact that headteachers' low levels

of modeling are not found to be attributed to their reluctance to be role models for their teachers but to their lack of skills and knowledge to do so. Headteachers are still enthusiastic and positive about the initiative and try to find alternative ways to show good practices to the staff whenever they are not able to do so themselves. Headteachers' lack of knowledge on ICT implementation and the problems that might arise from such deficiency are discussed in a later section of this discussion.

Headteachers' lack of knowledge on the particular change also explains the differences in the interview and document findings between headteacher Koham and the rest of the headteachers. Headteacher Koham is an expert in ICT and he therefore very regularly performs as role model to his teachers showing them how to most effectively use ICT. It seems that the fact that Koham is very well informed and possesses adequate knowledge in ICT plays an important role in how well he deals with the particular change and in being a good model for his teachers. Headteachers of Cyprus have a particularity as regards their potential to be role models for their teachers compared to headteachers in other countries. They have teaching responsibilities so they can easily demonstrate good practices to their teachers while teaching their own classes. Headteachers should therefore be trained in the changes they are expected to implement, especially when it comes to teaching practices, so as to be able to show to their teachers how these changes can be implemented effectively. The importance of headteachers' training about changes they are expected to implement is discussed later in this chapter.

Teachers also reported that they don't turn to their headteachers when they need help. This could again be explained by the fact that their headteachers do not possess the appropriate knowledge to provide help. Another reason why teachers don't turn to their headteachers for

help could be the fact that teachers' feel that their headteachers don't have the time to help them.

Individualized support

Individualized support involves leaders paying attention to the individual concerns, needs, abilities and aspirations of the followers about the change to be implemented and try to address them by supporting, encouraging, mentoring and coaching them to use their abilities and competence effectively (Bass, 1997). The data analysis reveals that individualized support is an important dimension of transformational leadership since it is highly correlated with all other aspects of transformational leadership. In fact, there is a strong correlation between individualized support and school culture having structures of collaboration (Pearson correlation=0.691 and $\alpha < 0.05$). This correlation could actually mean that the more headteachers are concerned with their staff's individual needs the more they want to create a culture of collaboration in the school based on mutual support and exchanging of ideas. Teachers in their interviews confirmed the importance of having a headteacher who shows individualized support to them, as well as having cultures of collaboration in their school when they are expected to implement particular changes. Individualized support is also highly correlated with intellectual stimulation (Pearson=0.679, $\alpha < 0.05$) which is another aspect that teachers perceive to be important for them during change implementation.

The role of individualized support is particularly stressed by teachers who teach in two different schools, thus having two different headteachers, as well as teachers who compared their present headteacher with previous ones. They maintain that the support of their headteacher makes them behave differently than they did with other headteachers. They feel

more confident and eager to participate in the implementation of ICT. These findings add to Avolio's (1999) notion that transformational leadership is a leadership style that stimulates followers to change their beliefs and motives so as to raise performance for the benefit of the organization.

It could thus be inferred that it is important for headteachers to possess the attribute of individualized support in order to succeed in change implementation. According to Bass (1985) transformational leaders aim to find ways to motivate followers by caring for and trying to satisfy their needs. Leigh (1994) suggests that, a core skill in managing change is not only the ability to manage but also to relate to people. Headteachers of this study reported offering high levels of individualized support. These findings are also supported by documents and teachers' data obtained from questionnaires and interviews. Teachers report being more than satisfied with the level of support from their headteachers. It is important to note the low mean score that headteachers' and teachers' responses provided to the item that deals with the level of individual help that the headteachers provide on ICT issues (headteachers' mean=2.40, teachers' mean=1.79). This however is explained by the interview findings where teachers report that their headteacher is always eager to provide the appropriate resources and even if they don't possess the appropriate knowledge to provide practical help, they always find ways to do so by requesting the help of qualified colleagues or coordinators.

Intellectual stimulation

Findings on this dimension of transformational leadership reveal that headteachers partly show intellectual stimulation to their teachers. They use procedures that enable the staff to improve their knowledge and skills on ICT implementation, such as giving them the

opportunity to attend conferences or motivating them to try new ideas in their classes, however, they don't appear to be able to provide intellectual stimulation by offering new ideas or showing them examples of how to use ICT in the classroom. As already discussed above, primary headteachers of Cyprus have the opportunity to offer valuable intellectual stimulation to their teachers as they are teachers themselves. Lack of such behaviour can imply that headteachers lack appropriate knowledge and skills to help their teachers. It could also be possible that some headteachers, although possessing knowledge on ICT, don't appear very confident in front of the teachers so as to seek for help and intellectual support.

On the other hand, teachers interviewed reported being satisfied by the resources provided by their headteachers as well as the opportunities for professional development provided to them. However, some teachers interviewed report that they need more training on using ICT in the classroom so as to feel more confident and competent to implement the particular change.

Intellectual stimulation is found by this study to be an important variable that influences teachers' beliefs about change. Orr et al. (2008) found that principals of low performing schools did not work together with their teachers to review things and make plans for improvement, to reflect on current practice or try out new approaches, something that intellectual stimulation is about. On the other hand, Hay/McBer (Goleman, 2000) found that coaching leadership, which is devoted to the long-term professional development of the staff, is positively related to climate and performance. It is therefore important that headteachers should find ways to provide their teachers with all the intellectual resources necessary. An important issue raised by interview and document findings was the role of the school-based

ICT coordinator. Teachers reported to be satisfied with having a qualified colleague supporting them since their headteachers were not able to do so.

School culture and collaboration

Once a climate of openness, respect and trust is established all people involved feel free to express their ideas (Wilmore and Thomas, 2001). Consequently, consensus is developed. Most headteachers of this study were found to care about creating a culture of collaboration and mutual support among all members of staff.

Leithwood et al., (2002) stress the importance of the school context where the change takes place. They maintain that negative context beliefs, mostly developed by past experiences of a non-supportive school culture during change implementation, may erode their motivation to implement new reforms. Headteachers of this study were found to aim at creating a supportive school culture where structures of collegiality and collaboration are established. Most teachers feel satisfied with their school culture and the level of collaboration that exists within their school.

In addition, Leithwood et al., (2002) found that headteachers who help their teachers understand the reasons for implementing a particular policy, empower them to participate in decisions about this policy and provide them with resources to assist the implementation as well as opportunities to acquire new skills for the change implementation can lead to positive beliefs. Attributes as such are included in the dimensions of vision, intellectual stimulation and individualized support already discussed above. Such leadership is also related to Hay/McBer's democratic leadership which centres on building commitment and relies on consensus and was found to have positive impact on climate and performance (Goleman,

2000) and to be underpinned by emotional intelligence (Fullan, 2001). This study investigated the relation of the aforementioned variables with teachers' perceptions of their school culture and similarly to Leithwood et al.'s findings found that they are closely related.

In relation to the above, headteachers of this study maintain that all decisions for the implementation of the particular initiative are taken collegially and with the consent of the staff. Most of headteachers' and teachers' data, as well as documentary analysis, reveal that headteachers reinforce teacher leadership as well as cooperation among teachers especially with the coordination of particularly capable teachers. However, data obtained from teachers' questionnaire (see appendix 6) reveals that there are a number of teachers that feel that they are not sufficiently informed or consulted about the implementation of the initiative. Particular reference should be made to the items referring to headteachers sharing decision taking with the staff and collectively dealing with ICT issues during staff meetings. A couple of the teachers interviewed reported that their headteacher presents issues at staff meetings and asks teachers for their opinion and consent, however, eventually it is the headteacher's opinion that dominates. This kind of behaviour could once again imply headteachers' lack of knowledge and confidence in the relative area. Therefore, they find it difficult to accept decisions that are taken by the teachers if they don't have sufficient knowledge about them so as to feel assured that they are making the right decisions.

Such feelings on behalf of the teachers could lead to resistance and limited participation in the initiative. McLaughlin (2000 cited in Leithwood et al., 2002) found that teachers resisted a particular initiative because they believed there was insufficient evidence to support the positive effects of the initiative. In addition, Orr et al.'s (2008) findings on factors contributing to low performing schools show the principals of their study having limited

capability to develop procedures that include everyone in the improvement process. This kind of inability was found to be one of the factors leading to low performing schools.

TRANSACTIONAL LEADERSHIP

Transactional leadership focuses on basic needs and the leader motivates followers' compliance by offering them extrinsic rewards in exchange for efforts and output (Bass, 1985; Horner, 1997). It is firstly composed of Contingent Reward, involving a positive reinforcement, on behalf of the leader to the follower, which most of the time includes an exchange in order to facilitate the achievement of the objectives. It also includes Management by Exception, where the leader uses negative reinforcement and punishment when things go wrong (Bass and Avolio, 1994; Bass, 2000). In this study, most headteachers do not believe that they demonstrate transactional leadership (mean=1.95). Teachers agree with their headteachers since the overall mean score of teachers' responses about transactional leadership is 1.79. Below there is analysis for each of the three dimensions of transactional leadership.

Contingent Reward

As already discussed above, contingent reward involves the use of exchanging techniques on behalf of the leaders in order to obtain their followers' compliance. It would be reasonable that most headteachers would report possession of high levels of contingent reward, since it appears to be a very useful and easy technique in order to achieve compliance. However, this was not the case in this study, where headteachers report using low levels of contingent reward (overall mean=2.08). Headteachers report disagreeing or strongly disagreeing with questionnaire items that describe transactions between them and their teachers but agree with items referring to more discreet transactions between headteachers and teachers.

Headteachers seem to watch their teachers and offer rewards whenever they observe good practice. It could be inferred that headteachers use transactional ways of achieving compliance, however in a more diplomatic and prudent way.

Teachers agree with their headteachers' responses by providing an overall mean score of 1.85 for contingent reward. The relatively low mean score could be explained by the fact that teachers of public primary schools in Cyprus (where this study was conducted) are appointed, paid and promoted by the Ministry of Education and Culture. Headteachers cannot offer a wide range of rewards to their teachers other than praise and good reports. Hence, the transactions that headteachers are able to use in order to offer teachers motivation are extremely limited.

Although studies often show followers to be more satisfied with transformational leaders rather than transactional ones (e.g. Ruggieri, 2009), teachers of this study report the need for headteachers to use more contingent reward and reward them in more ways. They have suggested a number of ways such as the use of bonus points, or credit points which would be given by the headteacher to each teacher at the end of the year in order to be taken into consideration for evaluation or promotion purposes. Studies investigating the effects of transactional leadership on followers' perceptions of leaders' effectiveness and satisfaction with the leader (Bass, 1985) revealed positive relationships between contingent reward, which is a component of transactional leadership, and followers' perceptions. Judge and Piccolo (2004) assert that contingent reward may be a more useful tool that leaders can use in order to obtain followers' satisfaction and compliance. Teachers of this study are found to support this view. Although they report satisfaction by their headteachers using transformational practices they also report need for being more rewarded for their work. O'Shea et al. (2009) similarly found that leaders who have contingent reward in their

repertoire, even if this already contains transformational behaviours, may enhance their level of effectiveness. It seems therefore important that headteachers use contingent reward to achieve compliance.

Management by exception

Headteachers report exhibiting low levels of management by exception. Mean scores in four out of the five items which define this variable are below the mid-point of the scale. This means that headteachers do not use negative reinforcement, such as threats, in order to obtain compliance, neither do they use punishment when something goes wrong. Teachers agree that their headteachers exhibit low levels of management by exception with four out of the five items being below the mid-point of the scale.

The low levels of management by exception that headteachers appear to use are in line with the high levels reported on certain aspects of transformational leadership with notions and values quite opposite to those implied by management by exception such as individualized support, where the headteacher is concerned with followers' needs and abilities, as well as shared decision making and a culture that reinforces collaboration. A study conducted by Bass (1985) investigating the impact of transactional leadership style on followers' behaviour revealed that management-by-exception was positively related to non-compliance of the followers and negatively related with extra effort. It is therefore important that headteachers exhibit low levels of management by exception so they obtain followers' compliance and consent to work in order to achieve particular goals.

The headteachers' responses to item 36 (the headteacher watches how the staff integrate technology in their lessons and takes corrective action if needed) gave a mean of 2.64 which

is above the mid-point of the scale. Teachers' on the other hand do not appear to agree since the mean for their responses is 1.91. It is possible that teachers on one side do not perceive their headteachers knowledgeable enough to watch them during their lessons and be able to evaluate them about whether they are doing the right thing and take corrective actions if needed. On the other hand, headteachers responded positively to this item because watching teachers during their lessons is actually one of their duties as headteachers so they needed to say that they do so. At the annual seminars for headteachers inspectors are particularly insistent that headteachers watch their teachers during their lessons so that headteachers have the opportunity to advise their teachers about making their lessons more effective. It is therefore possible that headteachers perceived this question was about them observing their teachers or they might not be telling the truth in order to seem consistent with what is expected of them as headteachers.

PASSIVE LEADERSHIP

Headteachers report exhibiting very low levels of passive leadership, which is absence of leadership. Leaders who use this style do not care about how the organization works or about their followers. Passive leaders avoid taking up responsibilities, are absent when needed, refuse to follow up on requests for help and resist expressing their own views on important issues (Jones and Rudd, 2007). All these attributes are in contrast to what transformational leadership suggests, attributes of which headteachers of this study were found to exhibit. It is therefore reasonable that passive leadership results would be very low for the headteachers of this study. These findings are consistent with Jones and Rudd's study (2007) who investigated the leadership styles adopted by academic programme leaders in colleges of agricultural and life sciences. They found that these leaders tended to very rarely use attributes of laissez faire leadership whereas more often they use transformational leadership as in the present study.

The passive leader gives the majority of control in the decision-making process to the followers. However, this is not done in the way that transformational leadership suggests. Laissez-faire leadership assumes that followers are intrinsically motivated and should be left alone to accomplish tasks and goals without any assistance from their leader (Jones and Rudd, 2007). Most headteachers of this study were found to share decision making and implementation procedures with the followers in a productive and coordinated way. Laissez-faire proved to be negatively related to both perceptions of leader effectiveness and satisfaction with the leader (Bass 1985).

R.Q.3: How do teachers' perceptions of their headteachers' leadership style affect their attitudes towards change as well as their level of commitment to change?

This study has also investigated teachers' perceptions of their headteachers' leadership style and how these might affect their attitudes and commitment to change. Leithwood et al., (2008) assume that improved employee performance "is a function of employees' beliefs, values, motivations, skills and knowledge and the conditions in which they work" (p. 29). Thus, in order to be successful, school leaders should adopt practices that address such dimensions. Feelings of enthusiasm and satisfaction on behalf of the followers play an important role when leaders wish to build commitment to change (Leithwood et al., 2002). Most teachers of this study reported being positive towards ICT implementation in the classroom. Most of them reported feeling confident in using ICT in their lessons, although there are a number of them that reported less confidence in using ICT and pointed out the need for training to gain more confidence in the topic. Teachers interviewed also reported

how useful they believe ICT is for their lessons and felt excited about the opportunity they are given to make their lessons more interesting and effective. A study conducted by Leithwood et al., (2002) found that when educators perceive that the outcomes of a policy they are called to implement are relevant to their work and associated with improving teaching and learning, they view the implementation more favorably and have fewer feelings of anger and frustration. Indeed the teachers of this study believe that ICT will enable them to make their lessons more interesting and enjoyable for their students and lead to teaching efficiency and effectiveness.

The findings of this study also suggest that there is a relationship between teachers' perceptions of their headteachers' attributes of transformational leadership and their attitudes and beliefs about ICT implementation. This could imply that the more a headteacher performs as a transformational leader the more likely it would be for teachers to positively view changes that they are expected to implement. Being more specific, it is possible that if headteachers articulated their visions about particular changes they are expected to implement, communicated these visions to the staff and are enthusiastic about these changes they will increase teachers' interest in implementing them. It is also important that headteachers intellectually stimulate their followers, provide them with the appropriate support and show models of good practices so as to motivate teachers to participate in the procedure of change implementation and obtain commitment. Data obtained by teachers' interviews confirms the aforementioned assumptions revealing that most teachers relate their feelings about ICT to their headteachers' behaviour and level of support. The importance of the aforementioned attributes of transformational leadership has been further stressed earlier in this chapter. Similar views are supported by a number of researchers based on their own research findings. Cole et al. (2006) found that supervisors' support is negatively related with feelings of frustration on behalf of employees while Wanous et al.

(2000) revealed that keeping people informed and caring about them are also negatively related with negative feelings. Leithwood et al., (2002) maintain that many of the leadership practices likely to build commitment in teachers are encompassed in a transformational leadership model of school leadership. Ross and Grey (2006) found that transformational leadership practices have a strong, positive effect on teachers' commitment to a professional learning community and school mission as well as on their sense of collective teacher effectiveness. According to Boga and Ensari (2009, p. 239) "to counterweigh the employees' aversion to change, leaders need to involve them and encourage active participation in the intervention process".

R.Q.4: What are primary school headteachers' attitudes and feelings towards this particular kind of change? and

R.Q.5: What is the relationship, if any, between headteachers' attitudes towards ICT implementation and the leadership styles (transactional, transformational or passive) they adopt?

James and Vince (2001) discuss how the emotions of the leaders can affect the way they behave in an organization. The way, therefore, headteachers feel about the particular change they are expected to implement, whether this change promotes to feelings of frustration or enthusiasm could prove to be important. Headteachers of this study have reported positive beliefs and attitudes towards the particular change. They support it and are willing to try for its effective implementation. Questionnaire findings reveal a mean score to all items which is considerably higher than the mid-point of the scale (overall mean=3.50). Most of the headteachers reported agreeing or strongly agreeing with all items. Interview findings are consistent with the questionnaire findings. Headteachers report strongly supporting the

initiative and the documentary analysis found them supportive and enthusiastic about this innovation. However, a constraint on the ICT implementation appears to be their lack of skills and knowledge about the topic. This contradicts findings reported from James and Vince's study (2001). Headteachers in their study felt uncertain about how they might react to new challenges were reluctant to work with uncertainties and anxieties and didn't want to confront the unknown. As a result they didn't take risks or seek change. They reported ignoring what they didn't understand and consequently, they could "distance themselves from being able to make change happen" (p. 313).

Beliefs were found to be positively correlated with all aspects of transformational leadership. This means that the more positive beliefs about the particular change headteachers have the more willingness and passion they will demonstrate to make change happen and consequently perform as transformational leaders. These findings are also supported by the differences that exist between the schools with respect to the amount of the time devoted to issues related to ICT implementation in staff meetings. It is also important to mention that although new software was provided by the Ministry to all schools, the only school that had presentations and informative sessions about the particular software is Koham's school. These differences can be attributed to the fact that some headteachers were more interested and enthusiastic about ICT implementation, most probably because they were more informed and educated about the particular change. It is also interesting to discuss the fact that other headteachers dealt more often with other kinds of changes. For example, headteacher Christof very often brought to the meetings the issue of school programmes, an innovation, as revealed from his interview, he was very much in favour of.

R.Q.6: What is the relationship, if any, between headteachers' educational background in general and educational background in leadership and management with their leadership styles and beliefs about change?

The findings of this study reveal that the only aspects of transformational and transactional leadership affected by headteachers' educational background are those of vision and modeling behavior. This means that headteachers with a better educational background report possession of higher levels of vision and are also better role models for their teachers. These findings are supported by interview and document findings. It is possible that headteachers with a better educational background, especially if this is related to the change they are expected to implement, feel more confident and able to form an articulated vision about the implementation since they possess the appropriate knowledge to lead the change and convince followers to participate. These headteachers also have the knowledge to perform as role models to their teachers. On the contrary, headteachers with a poorer educational background might not possess the appropriate knowledge to be models for their teachers. Another explanation that can be given about these results is that the headteachers with a lower educational background are the older ones who only received the basic qualifications for becoming teachers. These headteachers, it is reasonable to assume, possess poorer knowledge of ICT, in contrast to younger ones. This study hasn't investigated such differences but they may be worth investigation in the future.

Educational background is not shown to affect any of the dimensions of transactional leadership. All levels of significance show that no important causal relations between headteachers' educational background and transactional leadership exist.

Finally, this study has not found a relationship between headteachers' educational background and their beliefs about ICT implementation. All headteachers reported being supportive about ICT implementation regardless of their knowledge of the subject or their educational background. In addition, all teachers interviewed confirmed that no matter if their headteachers did not possess much knowledge on ICT, they were open to this innovation.

Headteachers' educational background in leadership and management was not found to affect any aspects of transformational or transactional leadership. Questionnaire findings are supported by interview and document findings. The non existence of a relationship between headteachers' background in leadership and management with their leadership styles could possibly be explained by the fact that all headteachers reported having attended conferences or seminars on leadership, they are therefore aware of the theory on leading and managing and what is perceived by the literature to be effective or not. However, headteachers who possess a post graduate degree in leadership and management during the interviews commented on how important and helpful their degree was when having to carry out the role of the headteacher. They stressed that their degree helped them feel more confident in carrying out their role, especially when it came to interpersonal relationships.

Finally, education on leadership is not found to affect headteachers' beliefs about ICT implementation, reinforced by findings from headteachers' interviews. All headteachers reported being very enthusiastic and supportive about ICT implementation regardless of their training in leadership and management. This was supported by the teachers. However, given the fact that most teachers stressed their headteachers' lack of knowledge in the area of ICT, it seems of great importance to investigate whether there are any possible

differences between headteachers who have knowledge about the change they are expected to implement and those who haven't.

R.Q.7: What are the headteachers' perceptions about their training for headship and for leading change? and

R.Q.8: What needs might headteachers have when leading change?

This study attempted to identify headteachers' perceptions about their training for headship as well as for leading change. It also aimed to reveal possible deficiencies that headteachers could have from their lack of training, as well as other needs that impact on their effectiveness at implementing not only this particular change but also other changes. Information has been mostly obtained from interviews and documents.

NEED FOR EFFECTIVE TRAINING

Headteachers' need for effective training is obvious in all kinds of data obtained for this study. Firstly, they point out the need for training on how to carry out their role more efficiently and effectively. Training courses that take place during their first year of appointment, as well as conferences and seminars that take place every school year seem insufficient to satisfy headteachers' need for knowledge on how to lead a school and how to cope with change effectively. Headteachers view the training courses as theoretical and request more practical ideas. According to Sherman (2006) school leaders' preparation should include theory and practice so as to form leaders capable of transforming schools.

In addition, the need for training to take place prior to their appointment was stressed by all headteachers. They all reported being frustrated when called upon to lead a school without any knowledge of the subject. The need for headteacher preparation is recognized world

wide and many countries have developed leadership programs for future or existing headteachers (Ribbins, 2003; Bennett, 2004; Dimmock, 2003).

Moreover, most of the headteachers found the fact that they have worked near very capable headteachers as deputy heads very useful. However, deputy heads are not normally assigned a lot of leading and managing duties and it's usually up to them whether they are involved or not with the procedure of leading a school. Most of them don't do so because of the workload they have, since their teaching hours are only a few less than those of teachers. They all report that being able to watch closely someone already in the position of the headteacher would be very important for them in order to feel more confident with their future role.

Another notable fact about headteachers' training is the fact that all training courses, as well as conferences and seminars are organized and carried out by the Ministry of Education and Culture as well as the school inspectors. Most presentations are carried out by the inspectors, most of whom have no particular knowledge or skills in educational leadership. To become a school inspector the only additional qualification needed is a post-graduate degree relevant to education. It is thus possible that many of them might not be capable of educating the headteachers in leadership and management issues and some headteachers definitely have more knowledge on the subject than the inspectors. Headteacher Griky very well remembers that the most useful presentation of the training courses she attended was one carried out by a colleague headteacher who has a Masters and a Doctorate degree in leadership and management and works as a part-time lecturer in one of the universities in Cyprus.

Goleman (2000) maintains that leadership training can teach people to analyze situations better and use the appropriate style. Indeed findings from headteachers' interviews support

this claim. All headteachers who possess a Masters' degree in leadership and management assert that by knowing what is effective when leading a school and what isn't, what works and what doesn't, which leadership style is perceived to be more appropriate in dealing with particular situations has helped them to form the most effective leadership style possible in order to lead their school.

Talking about ICT implementation, most headteachers report feelings of frustration because they are not able to help their teachers with this. Teachers also express feelings of disappointment with their headteachers because they are not able to provide any particular help with ICT. Most turn to other qualified colleagues for help instead of asking their headteachers and state that they would like to have a headteacher able to provide more assistance and advice. The need, therefore, for headteachers' to have training in the field of the change they are expected to implement appears obvious. In fact, headteachers should also be trained in how they should cope with change. Orr et al. (2008) mention, as one of the reasons for the difficulties that leaders face during change implementation, the inability to take advantage of the restructuring strategy and other aggressive school improvement approaches. Leaders therefore need to understand the change process and their role as change agents in order to be ready to cope with circumstances they confront. More discussion on headteachers' training as well as suggestions for effective programmes for leadership preparation and development take place in the following chapter of this thesis.

NEED FOR LESS WORKLOAD

All headteachers interviewed complained about the workload they have to deal with as headteachers. It is indeed a fact that headteachers in primary schools of Cyprus have a lot of duties and responsibilities, including managerial tasks, managing the school funds, filling in

all the paperwork, communicating with external stakeholders such as parents and the Ministry, supporting the work of the staff as well as teaching responsibilities. Such a situation frequently makes them feel frustrated and more importantly doesn't allow them much time to become involved with more important school issues such as dealing with change or supporting the staff. Leaders who participated in a study investigating how leaders' emotions affect their behaviour in the organization also reported feelings of frustration and tension due to the increased workload that they have when trying to fulfil the requirements of their role. The increased workload has in fact led them to use more authoritarian leadership styles (James and Vince, 2001). Similar findings were also reported by Leithwood et al. (2002), where headteachers reported their frustration about being called to initiate and implement major changes and at the same time not given the time to do it.

It could be inferred that one of the reasons why headteachers' and teachers' responses to some questionnaire items referring to headteachers being active participants in school events, supporting the work of the staff individually, being role models for their teachers, organizing training events such as demonstration lessons, are relatively low is due to the fact that headteachers don't have the time to deal with such important issues since all of their time is consumed in other tasks. On the other hand, the example of headteacher Koham reveals that it is possible for a headteacher to deal not only with routine tasks but also with important school issues such as training and supporting the work of the staff, especially when implementing change. Of course, this doesn't change the fact that headteachers feel pushed by the everyday tasks they are expected to carry out and they all agree (including Koham) that their everyday schedule needs to be relieved urgently.

SUMMARY

This chapter has analysed and discussed the main findings of the study against each of the research questions. This study found that headteachers of primary schools of Cyprus demonstrate moderate levels of transformational leadership practices. Such forms of leadership were found to positively affect followers' beliefs about change and enhance their commitment to change. With respect to transactional leadership, headteachers of this study were not found to exhibit high levels of such practices. However, teachers pointed out the need for more contingent reward. Headteachers also reported exhibiting very low levels of passive leadership. Headteachers of this study have reported positive beliefs and attitudes towards the particular change. Beliefs were found to be positively correlated with all aspects of transformational leadership. Headteachers finally pointed out a number of needs that would enable them to perform their role more effectively among which are the need for substantial training and the need for less workload.

CHAPTER 6: CONCLUSION

This research has investigated the leadership styles that headteachers of primary schools of Cyprus adopt when being called to implement a particular change, namely ICT implementation. It has particularly focused on transformational, transactional and passive leadership. Transformational leadership has been identified by the literature to be the most appropriate style to use when leading change. It is composed, for the purposes of this study, of six dimensions each of which has been also measured separately. These were: vision, high expectations, modeling behaviour, individualized support, intellectual stimulation, school culture and collaboration. Transactional leadership in turn is defined by contingent reward and management by exception (active). Credit was also given to one attribute of transactional leadership, namely contingent reward, however, its positive effects were not investigated under conditions of change. Passive leadership has also been used which refers to passive management by exception and laissez faire. This study has also investigated headteachers' beliefs and attitudes about ICT implementation and the relationship of these beliefs to their leadership styles. It has also attempted to examine the relationship between what teachers' believe of their headteachers' leadership style with teachers' attitudes towards the particular implementation. Finally, it has aimed to explore headteachers' beliefs about their training for headship and for leading change and identify deficiencies and needs they might have.

What makes this study different from other similar studies conducted to investigate transformational and transactional leadership is the fact that it is conducted in Cyprus, a context within which similar studies have not been conducted so far. Within this context, this study has identified the leadership styles that headteachers adopt when leading ICT implementation and most importantly, it has identified a number of drawbacks that

headteachers might face when leading change in their schools. In addition, this study uses evidence not only from followers (in this case teachers) but also from the leaders themselves (in this case headteachers). It also investigates the leadership practices of the headteachers under actual conditions of a particular change, namely ICT implementation.

In order to fulfill the purpose of this study and address the research questions, a number of methods for data collection have been used. Firstly, survey questionnaires were distributed to the selected sample of headteachers and teachers. Subsequently, among the respondents of these questionnaires who gave consent, a number of schools were selected in order to conduct interviews with headteachers and teachers as well as documentary analysis of minutes of staff meetings.

The findings of this study show that headteachers of primary schools in Cyprus exhibit more transformational than transactional leadership styles, when leading ICT implementation, however possessing higher levels of some aspects of transformational leadership and lower levels of others. It was found that while headteachers are concerned with their teachers' personal, professional and intellectual needs they have particular difficulties when it comes to addressing these needs by providing appropriate intellectual stimulation and modeling behaviour on how to implement ICT more effectively. These findings have mostly been attributed to headteachers' deficiencies and needs when being called to implement particular changes. These are reported to be the lack of time for dealing with important issues such as leading the staff towards effective change implementation as well as the lack of skills and knowledge or confidence to do so. It is expected that if these deficiencies and needs are addressed headteachers would show higher transformational leadership practices. Ways of addressing these needs are discussed below. The centralized educational system of Cyprus could also be a drawback to headteachers' performance as transformational leaders because

they are not left to form their own visions for their schools, neither to have complete control on the procedures, norms and values according to which the school operates and the staff behaves.

Starting with vision, this has proved by this study to be an important variable for effective leadership since it is correlated with all other attributes of transformational leadership. Findings based on data obtained by headteachers' questionnaires, headteachers' interviews and documents show that headteachers do have a vision of how to implement the policy. However, teachers' questionnaires reveal that headteachers possibly have problems in communicating this vision to the staff. A number of teachers are unaware of their headteacher's vision and how this is expected to be fulfilled. Documents show that headteachers have a number of issues to discuss at the meetings, therefore the time allocated to issues regarding the implementation of this policy, or other changes is very limited. A suggestion would be to allow headteachers and teachers some extra time to deal with changes they are expected to implement. A good idea would be to set meetings which particularly focus on the change issues. This way the headteacher and the staff could focus on the ICT implementation without any other issues to disturb them. Another obstacle that headteachers face when trying to communicate the aims of the initiative and plan the implementation procedure is headteachers' lack of knowledge of the subject as well as on techniques used to implement changes. Finally, the fact that headteachers are very often moved from one school to another does not allow them much opportunity to form an articulated vision for improving their school, let alone for implementing changes. Headteachers reported frustration and disappointment on this issue. Headteachers need to stay in one school for several years to be able to form a vision about several changes that can take place in their school unit and have the time to realize it. Jantzi and Leithwood (1996)

agree that moving headteachers from school to school “minimizes or eliminates the potentially powerful contribution of principals to school effects” (p. 531).

Another issue raised in this study is the fact that headteachers do not have much freedom to decide on important matters in their schools, such as implementing particular internal innovations. The validity of transformational leadership is actually being challenged by the centralized educational system of Cyprus where headteachers need to be in line with the values of the government and accept decisions taken for them. Such a system is a constraint for visionary headteachers who want to bring about change in their schools. Headteachers should be allowed more freedom to lead their school. They should feel free to pursue their own values, even if these are not consistent with those of the government, if these will lead to school improvement and effectiveness.

Another important variable that this study found that could lead to effective leading of change is that of individualized support. Individualized support is highly correlated with all aspects of transformational leadership and particularly with collaborative school culture. Findings suggest that teachers feel very satisfied with headteachers who care about their individual needs. Consequently they feel more willing to participate in the change process, collaborate with the headteachers and the rest of the staff and make change happen.

In addition, intellectual stimulation and modeling behaviour proved to be important variables affecting teachers' beliefs about ICT implementation. Although most teachers' interviewed reported satisfaction with the level of intellectual stimulation received from their headteacher, the overall responses of all teachers that took part in this study show that headteachers do not use much intellectual stimulation with their teachers neither they are true role models for them. This can possibly be attributed to headteachers' lack of

knowledge on the subject or even confidence to deal with it. Whatever the reasons are, headteachers should seek ways to provide their teachers with adequate resources in order to feel confident about a particular change. Particularly in the case of Cyprus, where headteachers have teaching responsibilities, there is great opportunity for them to be role models for their teachers and intellectually stimulate them about how they can implement ICT more effectively. It is therefore important that headteachers should primarily gain knowledge and confidence for themselves so as to share these with their teachers. Another idea that teachers seemed to be in favour of is having a school based coordinator. Particular qualified teachers could be assigned as coordinators, the role of which would be to advise and help teachers on issues that trouble them. This also reinforces teacher leadership, which is perceived as one of the effective practices that transformational leadership uses (Leithwood et al., 1999). As headteachers in this study were found to support a culture of collaboration and mutual support, using practices that reinforce distributed and teacher leadership, it would not be too difficult to see this development as an extension of their existing practice.

With respect to transactional leadership, headteachers were found to use low levels of this style. What is interesting to discuss about transactional leadership is the need that teachers expressed for their headteacher to be able to provide more rewards to them. Again the problem derives from the centralized educational system of Cyprus. Headteachers should be freer to have an impact on their teachers' evaluation or promotion. Of course, this should be done with caution, since authoritative leaders could use this power to obtain compliance. Rewards should be used in a positive way, not in the form of threats.

This study has also revealed that teachers' beliefs about change were affected by headteachers' leadership styles. Teachers reported to relate their feelings about change as

well as their level of commitment and level of effort they are willing to make for the implementation of the change with how their headteacher behaves. They show a clear preference for transformational leaders who care about their individual needs and are concerned with providing them with all the necessary resources in order to feel effective in their work. Headteachers should therefore be trained to use transformational leadership practices in order to obtain followers' satisfaction and positive attitudes towards and commitment to change. Training headteachers to demonstrate transformational leadership behaviors will enable them to effectively manage organizational change by reducing employees' cynical attitudes towards organizational change (Wu et al., 2007).

Headteachers' beliefs about the particular change were also found to be correlated with them using attributes of transformational leadership. Most headteachers of this study reported being positive about ICT implementation. It would be of great importance, prior to calling headteachers to implement particular changes, to inform them about the potential positive educational effects these changes would have and how they would contribute to organizational effectiveness. This way the Ministry of Education and Culture would act as a visionary leader that not only has a vision about change but also communicates this vision to followers (in this case the headteachers), thus motivates them to view changes more positively, commit to them and try harder to make them happen.

The need for leadership preparation has been pointed out by all headteachers that took part in this study, even by the most qualified ones. They all report frustration about being called to lead a school without receiving any training in how to do so. They also all report the need for training prior to their appointment as headteachers. They refer to the conferences and seminars conducted for those headteachers already appointed as being inadequate to cover their needs as school leaders and as leaders of change.

It is firstly suggested that taking part in the training courses should be considered a prerequisite for those who are interested in becoming a headteacher. At the moment, the only prerequisites for becoming a headteacher are a particular number of years of teaching experience as well as relatively high marks in their evaluations. According to Bush (2008) teaching qualifications and experience alone cannot any longer provide a sufficient basis for school leaders. On the contrary, headship is perceived to be a specialist position that requires different skills from those possessed by classroom teachers. In the case of Cyprus, a kind of school for future headteachers-leaders could be established and there, future headteachers would be provided not only with the theoretical basis of leading and managing a school but also with the opportunity to work as trainees which would be observed, evaluated and feedback provided by experts on the subject. This way, all teachers or deputy teachers who are interested in becoming headteachers will attend the leadership preparation programmes and be more ready and confident to carry out their role. Bush (2008) goes one step further and suggests that in centralized educational systems, [such as the Cypriot one¹], leaders who are appropriate for preparation and subsequently appointment as headteachers could be easily identified. This could be done by the Ministry of Education after a process of ongoing assessment and as a result, only people who are particularly appropriate for this role would be promoted to headteachers.

The idea of headteachers being trainee headteachers prior to undertaking their responsibilities is also suggested by one of the headteachers interviewed. The suggestion was that headteachers would be allowed a specific period after they were appointed to a school to work alongside the previous headteacher of the school and then be left alone to lead the school. This would mean that the school would have two headteachers for a period of time so

¹ Author's addition

that new headteachers would be provided with the opportunity to learn from the old and more experienced ones. Bush (2003) maintains that the development of effective leaders could be achieved by a number of strategies, among which is mentoring by experienced and successful school leaders and opportunities to practice management. A possible limitation of such an attempt here in Cyprus would be that older headteachers might pass old, conservative ideas to the new headteachers and prevent them from leading schools in new innovative ways.

Headteachers had found it very useful working near qualified headteachers as deputy heads. They however report lack of time to do so very often, since their teaching duties as well as their duties as headteachers are very demanding. A solution to this problem could be to reduce the teaching hours of the deputy heads so they could be provided with the opportunity to work closely with their headteachers, actively participate in leading the school and thus feel more ready and capable of undertaking their role when promoted to the position of headteacher. Such a thing would also reduce headteachers' workload and provide them with the extra time they ask for.

Headteachers also express the need for leadership preparation programmes and in-service training, in addition to the conferences and seminars, to be carried out by professionals from the field of leadership and management. Training courses could be organized by universities, or headteachers who possess expertise and qualifications in leadership and management, where specialized lectures could provide the headteachers with the knowledge and material they want. As far as the author knows, there are a number of headteachers who possess a PhD degree in leadership. These are identified as most appropriate to carry out training courses since they are able to combine theory with practice.

Moreover, headteachers stressed their need for training about the change (ICT implementation) they were asked to lead and also about other changes they wish to implement particularly internal ones. This could possibly be attributed to the fact that headteachers were not trained properly for their role as leaders of change. Therefore, adequate and proper training, as suggested above, should solve one aspect of this difficulty. However, the findings of this study imply that headteachers also face problems in leading ICT because of their lack of knowledge on the subject. This made them feel unconfident to deal with the issue and actively take part in the implementation as a contrast to one of the headteachers who was particularly keen and had adequate knowledge on the subject. It seems therefore important that headteachers, when being called to lead a particular change, should be trained in order to obtain sufficient knowledge and skills on the subject.

The deficiencies and needs that headteachers revealed about their education and training seem to point out an urgent need for being intellectually stimulated. Intellectual stimulation has appeared throughout this thesis to promote followers' commitment to goals as well as to achieving change, by enabling them to understand what change is about and how it can be better implemented, using new ways of thinking. Headteachers reported lacking intellectual stimulation with respect to the need to understand change and how to implement it. The Ministry of Education and Culture, which in this case acts as a leader for the headteachers, needs to provide them with all the appropriate means to make them feel intellectually stimulated and enable them to understand change and how this can be implemented effectively.

A final need that headteachers revealed is for less workload and more free time to deal with vital issues. It is a fact that at the moment, headteachers are expected to carry out instructional duties, deal with everyday issues and lead their staff. Consequently there is not

much time left for their role as leaders. This situation had started to improve in 2007, when secretaries started to be appointed in the largest primary schools of Cyprus. Over the next few years more schools were equipped with secretaries, however there are still many schools especially the smallest ones without secretarial assistance. It would therefore be important that this procedure be speeded up so that all headteachers are relieved from some of their everyday workload. Perhaps headteachers should also be relieved of at least some of their instructional duties. It is important to be focused on their leadership role without having to perform as a teacher as well.

Another suggestion, already mentioned above is for leaders to use distributed leadership, allowing deputy heads to be more involved with the leadership and management of the school. Deputy heads could be motivated to take lead a group of teachers or for lead on a particular issue. They will of course be coordinated by the headteacher but it would be easier for them to coordinate deputies who in turn coordinate teachers. According to Southworth (1998) leaders should support teachers and deputies when assigning them different tasks and responsibilities, by acting as their mentors, listening to their ideas, commenting on their decisions and providing opportunities for everyone to lead.

Limitations of the study-suggestions for further study

This study aimed to provide information on how headteachers of Cyprus primary schools lead a particular change, namely ICT implementation. It has attempted to provide an insight into headteachers' leadership styles as well as the perception that teachers have of their headteachers' styles and how these perceptions might affect their attitudes towards ICT implementation. It has also attempted to give light to headteachers' and teachers' feelings and difficulties that they face during the implementation phase.

There was an attempt to obtain a representative sample of teachers and headteachers thus, although the aim of the study was not to generalize the results, part of the findings might be generalizable and applicable to other similar contexts. However, there are several limitations of this study that should be borne in mind. Firstly, the highly centralized system of Cyprus, where most important decisions about reforms are taken by governmental stakeholders might limit the generalizability of the findings to other cultures and contexts where educational systems are more open and allow schools and their staff (headteachers and teachers) more flexibility on decision making about policies to be implemented. The context could be particularly important for the role of contingent reward where Cypriot headteachers do not have much of a choice of rewards to use with their teachers. It is therefore important that similar studies be conducted in other contexts so as to investigate whether similar findings are found.

Another limitation of this study is the fact that the investigation was conducted on a particular kind of externally imposed change, namely ICT implementation. It could be possible that headteachers and teachers would behave differently under different change circumstances such as when they need to implement internal changes. It is therefore important to conduct the same study under different environments of change so as to compare the findings.

In addition, it should once again be mentioned that the sample of this study was obtained among the Greek-Cypriot primary schools of Cyprus that have a headteacher (the others are run by deputy heads). This means that the smallest schools were excluded from the sample. It could be possible to have different results with smaller schools.

Finally, this study has borne in mind only specific variables in order to investigate headteachers' leadership styles and how these are affected. It has identified relationships, where existing, between headteachers' educational background and their leadership styles, as well as their beliefs about ICT implementation. Findings have also revealed that most headteachers lack knowledge related to ICT. Although interview and document findings did not reveal any important differences between headteachers who possess knowledge in ICT and those who don't, it could be possible that when a larger sample is used, more differences in the ways headteachers who are capable in ICT lead compared to those who are not. The fact that headteachers do not possess sufficient knowledge in ICT has often been claimed by the researcher to be one of the explanations for the differences existing between the leadership styles adopted by the headteachers, especially regarding modeling behaviour and intellectual stimulation. It is therefore important that further study should be conducted in order to confirm or reject the claims made in this study. This study has also revealed that there are a number of other variables that can affect leadership styles during change. These could be: the age of the headteachers, their knowledge in the particular changes they are expected to implement, the size of the school, the location of the school and many more. It would be interesting if further studies were conducted investigating these variables.

Educational implications

This study could have a number of educational implications and impacts for practice. It has firstly informed the researcher of the leadership styles that headteachers adopt during change implementation, the reasons why they chose particular styles, as well as their deficiencies and needs to carry out their role more effectively. The researcher would be

able to use this knowledge if promoted to a headteacher, or even when adopting the role of a group leader.

In addition, this study has revealed important evidence for the headteachers with respect to which leadership styles are more preferable to teachers and can lead to their satisfaction and commitment to their job. These should be borne in mind by headteachers who would be better using these styles in order to obtain the desired results with the assistance of their staff.

Finally, this study has revealed major deficiencies that headteachers have, not only when implementing change but also when carrying their leadership role in general. These deficiencies should be seriously borne in mind by policy makers such as the Ministry of Education and Culture and other stakeholders who are responsible for the definition of the role of the headteachers as well as their training. Throughout the conclusions of this study there appeared to be an intensive need on behalf of the headteachers for the Ministry to act as a more transformational leader. There is a need for the Ministry to intellectually stimulate headteachers about how to lead their schools more effectively, as well as changes they are called to implement, to show individualized consideration bearing in mind and addressing their needs for additional time, training and resources, and to be a leader who possesses articulated vision and is able to communicate this vision to the headteachers in order to obtain their commitment.

SUMMARY

This chapter has highlighted the main findings of the study. Headteachers were found to possess a number of attributes of transformational leadership when leading ICT implementation which appear to be restrained by a number of factors such as headteachers'

lack of appropriate knowledge and training on the subject, lack of sufficient time to deal with change issues and the centralized educational system that exists in Cyprus. This chapter has also discussed ways in which these deficiencies and needs can be addressed. It has furthermore stressed the limitations of the study, identifying areas for further investigation, and suggested educational implications of the study. There is mention of the potential impact that this study might have on headteachers' and teachers' as well as the government practices when being called to lead particular changes.

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APPENDICES

Appendix 1: Introductory letters attached to teachers' and headteachers' questionnaire

Headteachers' letter

Irene Temete
(Teacher at Limassol 20th Primary School)
140th str., No.3, 4130.
Pano Polemidia
Limassol
Phone No. 99313245
Email: itemete@cytanet.com.cy

Dear headteacher,

Within the requirements of my studies for a Doctorate in Education degree (EdD) with the Open University (UK), I am conducting research in order to investigate which leadership styles headteachers of primary schools of Cyprus adopt in order to lead the innovation of ICT implementation in their schools. The following questionnaire is one of the instruments used for data collection.

Your response is very important for this study so as to be able to form a complete view of headteachers' leadership styles. I would appreciate it if you responded to this questionnaire with honesty. **I assure you that all your answers will be kept anonymous and will only be used for the purposes of this study.**

When you complete the questionnaire, please seal it in the enclosed envelope and return it to the person that gave it to you or post it to the address shown at the top of this letter.

Thank you in advance for the time you have spent for the completion of this questionnaire.

Yours sincerely,

Irene Temete

Teachers' letter

Irene Temete
(Teacher at Limassol 20th Primary School)
140th str., No.3, 4130.
Pano Polemidia
Limassol
Phone No. 99313245
Email: itemete@cytanet.com.cy

Dear teacher,

Within the requirements of my studies for a Doctorate in Education degree (EdD) with the Open University (UK), I am conducting research in order to investigate which leadership styles headteachers of primary schools of Cyprus adopt in order to lead the innovation of ICT implementation in their schools. The following questionnaire is one of the instruments used for data collection.

Your response is very important for this study so as to be able to form a complete view of headteachers' leadership styles. I would appreciate it if you responded to this questionnaire with honesty. **I assure you that all your answers will be kept anonymous and will only be used for the purposes of this study.**

When you complete the questionnaire, please seal it in the enclosed envelope and return it to the person that gave it to you or post it to the address shown at the top of this letter.

Thank you in advance for the time you have spent for the completion of this questionnaire.

Yours sincerely,

Irene Temete

Appendix 2: Application for approval for conducting educational research

Personal File No: 8011
Social Insurance No: 674932

Irene Temete
140th str. No. 3
Pano Polemidia
4130
Limassol

15th September, 2008

Head of Primary Education
Ministry of Education and Culture
Nicosia

Subject: Application for approval for conducting educational research

Sir,

I am a primary school teacher and I am at the second year of my studies for a doctorate degree at the Open University, UK. My research project has the title "Headteachers as leaders of change in primary schools of Cyprus" and aims to investigate ways (attitudes, values, leadership styles) primary school headteachers of Cyprus implement educational change.

It is widely known that we are going through a period of educational transformation so headteachers, as well as teachers, are called to cope with different kinds of innovations and new situations which are unfamiliar with. I believe that the findings of this study will contribute to the better understanding of the role of the headteacher as a change leader. Findings are also expected to provide insight in the headteachers' problems and needs that derive under changing circumstances. This study will also attempt to suggest solutions to such problems and ways of satisfying possible needs.

For achieving the aforementioned purpose of this study it would be necessary to distribute survey questionnaires to a number of primary school headteachers and teachers. Subsequently, interviews are needed to be conducted with a number of headteachers and teachers that will provide consent. It is also important to obtain different school documents such as minutes of staff meetings or other documents that are related with implementing particular changes. All schools, and consequently headteachers and teachers that will take part in the study will be selected by means of random sampling. I can assure you that the procedures for obtaining data for this study will by no means affect or disturb the proper functioning of the schools as well as the school curriculum.

I hope that I will be granted with your approval so as to be able to proceed with my study.

Thank you in advance

Yours sincerely
Irene Temete

Appendix 3: Headteachers' questionnaire

Questionnaire for the Headteachers

PART 1

A. Gender:

1. Male 2. Female

B. Years of experience as a headteacher

1. 1-5 2. 5-10 3. 11 and more

C. Educational Background

1. Pedagogical institute/BA
2. M.A
3. PhD, EdD
4. Other.....

D. Educational background in Leadership and Management (you can choose more than one)

1. None
2. Seminars and conferences in Leadership and Management
3. Lesson at the University in Leadership and Management
4. Ma in Leadership and Management
5. PhD or EdD in Leadership and Management
6. Other.....

PART 2

One of the major educational innovations of the latest years is the integration of the technology in the classroom.

How have you responded to this innovation? Rate the extend of your agreement with the following items:

1=strongly disagree, 2=disagree 3=agree 4=strongly agree

1. I am well informed about ways in which technology can be integrated.	1 2 3 4
2. I am aware of the individual skills and abilities that my staff has as regards the integration of technology in their classes.	1 2 3 4
3. I have a specific vision about how we can integrate technology effectively.	1 2 3 4
4. I communicate the aims of the specific initiative to my staff.	1 2 3 4
5. Aims and objectives of how to integrate technology effectively are set with collegial procedures and with the consent of all teachers.	1 2 3 4
6. My staff don't have to integrate technology in their teaching as long as no problems appear from the existing methods they use.	1 2 3 4
7. I have faith in my staff and expect that they will effectively integrate technology in their lessons.	1 2 3 4
8. I am aware which members of my staff are more interested in technology than others.	1 2 3 4
9. I don't have time to deal with any problems that teachers might face as regards the use of technology in their lessons.	1 2 3 4
10. Teachers are responsible of how to integrate technology in their lessons therefore I don't deal with this issue.	1 2 3 4
11. Teachers come to me when they face a problem about how they might integrate technology in their classes.	1 2 3 4
12. I always expect from my staff to do the right thing and integrate technology effectively.	1 2 3 4
13. Teachers trust me and respect and support my opinion with regard to how they can achieve integration of technology in their lessons	1 2 3 4
14. Teachers agree to integrate technology in their classes because I will be able to help them with their evaluation	1 2 3 4
15. I don't care about how my staff will deal with the integration of technology in teaching.	1 2 3 4
16. I want technology to be integrated my way.	1 2 3 4
17. Teachers can decide on how to integrate technology in their classes in whatever way the like without bearing in mind my opinion.	1 2 3 4
18. I expect staff to care about their professional development on how to integrate technology effectively in their classes.	1 2 3 4

19. Responsibility of how to integrate technology effectively is distributed amongst all staff members and co-ordinating committees.	1 2 3 4
20. I try to encourage staff to positively view the innovative idea of integrating technology in the classroom.	1 2 3 4
21. Each member of the staff is encouraged to set his/her own individual goals of how technology can better be integrated in the classroom.	1 2 3 4

**Circle the number which shows how often you do the following:
1=never, 2=sometimes, 3= often, 4=very often (if not always)**

22. I perform as a model to my staff showing how technology can be better integrated in teaching.	1 2 3 4
23. I listen carefully to my staff's ideas about integrating technology in the class.	1 2 3 4
24. Teachers of my school feel free to try new innovative methods that will help them integrate technology more effectively.	1 2 3 4
25. I organize demonstration lessons in my school to show examples of effective use of technology in teaching.	1 2 3 4
26. Teachers always ask for my consent before using a new way of using technology in their lesson.	1 2 3 4
27. I tell my staff to do something if they want to be rewarded for their work	1 2 3 4
28. I am actively involved with all school activities that have to do with integrating technology in teaching.	1 2 3 4
29. I mention in my reports which members of my staff use technology in their classes effectively.	1 2 3 4
30. I share decision making procedures with my staff as regards ways in which we can use technology to facilitate learning.	1 2 3 4
31. I provide individual help and support on how technology can be integrated in teaching whenever a member of my staff needs it	1 2 3 4
32. I reward my staff whenever I observe a good practice as regards the integration of technology.	1 2 3 4
33. Teachers are encouraged to discuss issues with their colleagues and exchange ideas about the integration of the technology in teaching.	1 2 3 4
34. Teachers of my school are treated according to their effort and the amount of work they produce.	1 2 3 4
35. I discourage staff from using the technology in ways that I don't agree with.	1 2 3 4
36. I watch how my staff integrate technology in their lessons and take corrective action if needed.	1 2 3 4
37. I give the teachers of my school the opportunity to attend seminars that will help them with the integration of technology in the classroom (during working hours).	1 2 3 4
38. I pass on to the staff new ideas about how to integrate technology effectively, by attending conferences, demonstration lessons or	1 2 3 4

visiting other schools.	
39. We collectively deal with the issue of technology in teaching during our meetings	1 2 3 4
40. I don't hesitate to make bad comments if I observe inappropriate practices of using technology.	1 2 3 4
41. I praise my staff whenever I observe that they use technology in their lessons.	1 2 3 4
42. I expect careful planning from the staff for effective integration of technology in their lessons.	1 2 3 4
43. I am aware of the individual needs of my staff as regards the integration of technology and provide appropriate help and resources to support these needs.	1 2 3 4
44. I provide to the staff opportunities and resources for collaborative work.	1 2 3 4
45. I show interest and enthusiasm about integrating technology in the classroom.	1 2 3 4

What is your opinion about this innovation? Rate the extent of your agreement with the following items:

1=strongly disagree, 2=disagree 3=agree 4=strongly agree

I believe that the integration of the technology in schools:

46. Supports school improvement.	1 2 3 4
47. Enables teachers to be more effective.	1 2 3 4
48. Makes the lesson more interesting.	1 2 3 4
49. Makes the preparation of the teachers easier.	1 2 3 4
50. Makes the procedure of teaching and learning easier.	1 2 3 4

PART 3

Would you be willing to be contacted for a brief interview about issues related to the content of this questionnaire?

Yes No

If yes, could you please complete the following information so as to be able to contact you? I assure you about what ever information you provide during this interview as well as your personal data will not be used for any purposes other than those of this study.

Name.....
School.....
Contact Phone.....

**Thank you in advance,
Irene Temete**

Appendix 4: Teachers' questionnaire

Questionnaire for the teachers

Part 1

A. Gender:

1. Male 2. Female

B. Years of experience as a headteacher

1. 1-5 2. 5-10 3. 11 and more

C. Educational Background

1. Pedagogical institute/BA
2. M.A
3. PhD, EdD
4. Other.....

Part 2

One of the major educational innovations of the latest years is the integration of the technology in the classroom. How has your headteacher responded to this innovation? Rate the extent of your agreement with the following items.

1=strongly disagree, 2=disagree 3=agree 4=strongly agree

1. The headteacher is well informed about ways in which technology can be integrated in the classroom.	1 2 3 4
2. The headteacher is aware of the individual skills and abilities that the staff has as regards the integration of technology in their classes.	1 2 3 4
3. The headteacher has a specific vision about how we can integrate technology effectively in the classroom.	1 2 3 4
4. The headteacher communicates the aims of the specific initiative to the staff.	1 2 3 4
5. Aims and objectives of how to integrate technology effectively are set with collegial procedures and with the consent of all teachers.	1 2 3 4
6. The headteacher believes that staff don't have to integrate technology in their teaching as long as no problems appear	1 2 3 4

from the existing methods they use.	
7. The headteacher has faith in his/her staff and expects that they will effectively integrate technology in their lessons.	1 2 3 4
8. The headteacher is aware of which members of my staff are more interested in technology than others.	1 2 3 4
9. The headteacher claims that he/she doesn't have time to deal with any problems that teachers might face as regards the use of technology in their lessons.	1 2 3 4
10. Teachers are responsible of how to integrate technology in their lessons therefore the headteacher doesn't deal with this issue.	1 2 3 4
11. Teachers turn to the headteacher when they face a problem about how they might integrate technology in their classes.	1 2 3 4
12. The headteacher always expects from the staff to do the right thing and integrate technology effectively.	1 2 3 4
13. Teachers trust the headteacher and respect and support his/her opinion with regard to how they can achieve integration of technology in their lessons	1 2 3 4
14. Teachers agree to integrate technology in their classes because headteachers are able to help them with their evaluation	1 2 3 4
15. The headteacher doesn't care about how staff will deal with the integration of technology in teaching.	1 2 3 4
16. The headteacher wants technology to be integrated his/her way.	1 2 3 4
17. Teachers can decide on how to integrate technology in their classes in whatever way they like without bearing in mind the headteacher's opinion.	1 2 3 4
18. The headteacher expects staff to care about their professional development on how to integrate technology effectively in their classes.	1 2 3 4
19. Responsibility of how to integrate technology effectively is distributed amongst all staff members and co-ordinating committees.	1 2 3 4
20. The headteacher encourages staff to positively view the innovative idea of integrating technology in the classroom.	1 2 3 4
21. Each member of the staff is encouraged to set his/her own individual goals of how technology can better be integrated in the classroom.	1 2 3 4

Circle the number which shows how often your headteacher does the following:

1=never, 2=sometimes, 3= often, 4=very often (if not always)

22. The headteacher performs as a model to the staff showing how technology can be better integrated in teaching.	1 2 3 4
23. The headteacher listens carefully to the staff's ideas about integrating technology in the class.	1 2 3 4
24. Teachers feel free to try new innovative methods that will help them integrate technology more effectively.	1 2 3 4

25. The headteacher organizes demonstration lessons in the school to show examples of effective use of technology in teaching.	1 2 3 4
26. Teachers always ask for the headteacher's consent before using a new way of using technology in their lesson.	1 2 3 4
27. The headteacher tells the staff to do something if they want to be rewarded for their work	1 2 3 4
28. The headteacher is actively involved with all school activities that have to do with integrating technology in teaching..	1 2 3 4
29. The headteacher mentions in his reports which members of the staff use technology in their classes effectively.	1 2 3 4
30. The headteacher shares decision making procedures with the staff as regards ways in which we can use technology to facilitate learning.	1 2 3 4
31. The headteacher provides individual help and support on how technology can be integrated in teaching whenever a member of the staff needs	1 2 3 4
32. The headteacher rewards the staff whenever he/she observes a good practice as regards the integration of technology.	1 2 3 4
33. Teachers are encouraged to discuss issues with their colleagues and exchange ideas about the integration of the technology in teaching.	1 2 3 4
34. Teachers of the school are treated by the headteacher according to their effort and the amount of work they produce.	1 2 3 4
35. The headteacher discourages staff from using the technology in ways that he/she doesn't agree with.	1 2 3 4
36. The headteacher watches how the staff integrate technology in their lessons and takes corrective action if needed.	1 2 3 4
37. The headteacher gives the teachers of the school the opportunity to attend seminars that will help them with the integration of technology in the classroom (during working hours).	1 2 3 4
38. The headteacher passes on to the staff new ideas about how to integrate technology effectively, by attending conferences, demonstration lessons or visiting other schools.	1 2 3 4
39. We collectively deal with the issue of technology in teaching during our meetings	1 2 3 4
40. The headteacher doesn't hesitate to make bad comments if he/she observes inappropriate practices of using technology.	1 2 3 4
41. The headteacher praises the staff whenever he/she observe that they use technology in their lessons.	1 2 3 4
42. The headteacher expects careful planning from the staff for effective integration of technology in their lessons.	1 2 3 4
43. The headteacher is aware of the individual needs of the staff as regards the integration of technology and provides appropriate help and resources to support these needs.	1 2 3 4
44. The headteacher provides to the staff opportunities and resources for collaborative work.	1 2 3 4
45. The headteacher shows interest and enthusiasm about integrating technology in the classroom.	1 2 3 4

How do you feel about the following? Rate the extent of your agreement with the following items:

1=strongly disagree, 2=disagree 3=agree 4=strongly agree

46 I feel confident to use technology during my teaching.	1 2 3 4
47 I like to use new ways, methods and means of integrating technology in my teaching.	1 2 3 4
48 I attend conferences or seminars in order to improve my knowledge about the integration of technology in teaching.	1 2 3 4
49 I have enough knowledge and abilities in order to use technology in my classes.	1 2 3 4
50 My school's culture encourages me to use technology in my classes.	1 2 3 4

Part 3

Would you be willing to be contacted for a brief interview about issues related to the content of this questionnaire?

Yes No

If yes, could you please complete the following information so as to be able to contact you? I assure you about what ever information you provide during this interview as well as your personal data will not be used for any purposes other than those of this study.

Name.....

School.....

Contact Phone.....

**Thank you in advance,
Irene Temete**

Appendix 5: The Interview Schedules

Teachers' interview:

1. Could you name and discuss any changes or innovations that took place in your school the last two years?
2. Who initiated these changes and how were decisions on implementing these changes taken?
3. How do you feel about these changes?
4. Have you been an active participant in the schools' effort to achieve these changes? What was your role particularly?
5. How has your headteacher supported staff's, as well as your, effort to respond to the changes implemented in your school?
6. Would you need something more than that in order to feel more efficient or supported?
7. What are your perceptions of an effective school leader in general and more particular of a headteacher that needs to implement particular changes or innovations in the school.
8. What headteacher's practices would make you feel more supported or able to implement changes in your school?
9. Do you feel comfortable about asking your headteacher about ideas or solutions for issues that bother you?
10. Does your headteacher easily allow you to attend training events? Do you organize such events in your school?
11. Is your headteacher capable of using ICT? Does he/she use it? Does he/she have relative knowledge?

12. How do you perceive the word reward? How does your headteacher reward you?

How would you like him/her to be able to reward you?

Headteachers' interviews:

1. What is the role you are expected to carry out as a primary school headteacher?
2. If you were to define the role of primary school headteacher would you add or change something?
3. Do you feel capable of achieving this role, in terms of the education and training you have had on how to lead and manage a primary school? If not:
4. What would you need so that you feel more competent and prepared to carry out your role?

Have you decided on implementing particular changes in your school in the last two years?

If yes:

5. Who initiated these changes and how were decisions on implementing these changes taken?
6. Does the person, organization or stakeholder that initiated the change make a difference to how you respond to the change? What about the time limit within which each change needs to be achieved (e.g. external or internal changes, long term or short term changes)?
7. How capable do you feel at implementing these particular examples of change?
8. Who do you think defines the culture of the school? What are the factors that might contribute or make it difficult to create and maintain the school culture?

Appendix 6: Tables of teachers' responses

Table 1: Teachers' responses for "Vision"

Items		Percent				Mean
		Strongly disagree 1	Disagree 2	Agree 3	Strongly agree 4	
1	The headteacher is well informed about ways in which technology can be integrated.	5.8	26.6	39.1	28.5	2.9
3	The headteacher has a specific vision about how we can integrate technology effectively.	9.7	34.3	37.7	18.4	2.64
4	The headteacher communicates the aims of the specific initiative to the staff.	12.1	29.0	36.7	22.2	2.69
5	Aims and objectives of how to integrate technology effectively are set with collegial procedures and with the consent of all teachers.	11.6	24.2	44.9	19.3	2.72
21	Each member of the staff is encouraged to set his/her own individual goals of how technology can better be integrated in the classroom.	6.3	17.9	44.9	30.9	3.01
Total	The headteacher is well informed about ways in which technology can be integrated.					2.79

Table 2: Teachers' responses for "High Expectations"

Items		Percent				Mean
		Strongly disagree 1	Disagree 2	Agree 3	Strongly agree 4	
7	The headteacher has faith in his/her staff and expects that they will effectively integrate technology in their lessons.	2.0	15.5	57.0	25.6	3.06
12	The headteacher always expects from the staff to do the right thing and integrate technology effectively.	8.2	20.3	50.2	21.3	2.85
18	The headteacher expects staff to care about their professional development on how to integrate technology effectively in their classes.	8.2	20.3	49.8	21.7	2.85
42	The headteacher expects careful planning from the staff for effective integration of technology in their lessons.	30.4	29.5	29.5	10.6	2.20
Total						2.74

Table 3: Teachers' responses for "Modeling Behaviour"

Items		Percent				Mean
		Strongly disagree 1	Disagree 2	Agree 3	Strongly agree 4	
11	Teachers turn to the headteacher when they face a problem about how they might integrate technology in their classes.	48.3	24.6	17.4	9.7	1.88
13	Teachers trust the headteacher and respect and support his/her opinion with regard to how they can achieve integration of technology in their lessons	6.7	18.4	49.3	25.6	2.94
22	The headteacher performs as a model to the staff showing how technology can be better integrated in teaching.	40.6	38.6	13.5	7.2	1.87
28	The headteacher is actively involved with all school activities that have to do with integrating technology in teaching.	20.8	29.5	31.9	17.9	2.47
45	The headteacher shows interest and enthusiasm about integrating technology in the classroom.	7.8	22.7	42.0	27.5	2.89
Total						2.41

Table 4: Teachers' responses for "Individualized Support"

Items		Percent				Mean
		Strongly disagree 1	Disagree 2	Agree 3	Strongly agree 4	
2	The headteacher is aware of the individual skills and abilities that the staff has as regards the integration of technology in their classes.	3.9	23.2	50.2	22.7	2.91
8	The headteacher is aware of which members of my staff are more interested in technology than others.	3.9	12.1	50.7	33.3	3.13
23	The headteacher listens carefully to the staff's ideas about integrating technology in the class.	5.8	20.8	35.7	37.7	3.05
31	The headteacher provides individual help and support on how technology can be integrated in teaching whenever a member of the staff needs	46.9	32.4	15.5	5.3	1.79
41	The headteacher praises the staff whenever he/she observe that they use technology in their lessons.	16.9	29.0	38.6	15.5	2.52
43	The headteacher is aware of the individual needs of the staff as regards the integration of technology and provides appropriate help and resources to support these needs.	7.7	16.4	41.5	34.3	3.02
Total						2.74

Table 5: Teachers' responses for "Intellectual Stimulation"

Items		Percent				Mean
		Strongly disagree 1	Disagree 2	Agree 3	Strongly agree 4	
24	Teachers feel free to try new innovative methods that will help them integrate technology more effectively.	10.1	27.1	32.9	30.0	2.83
25	The headteacher organizes demonstration lessons in the school to show examples of effective use of technology in teaching.	44.4	29.0	18.4	8.2	1.90
33	Teachers are encouraged to discuss issues with their colleagues and exchange ideas about the integration of the technology in teaching.	10.6	22.2	44.4	22.7	2.79
37	The headteacher gives the teachers of the school the opportunity to attend seminars that will help them with the integration of technology in the classroom (during working hours).	3.9	11.1	39.1	45.9	3.27
38	The headteacher passes on to the staff new ideas about how to integrate technology effectively, by attending conferences, demonstration lessons or visiting other schools.	26.1	34.8	23.7	15.5	2.29
Total						2.62

Table 6: Teachers' responses for "School Culture and Collaboration"

Items		Percent				Mean
		Strongly disagree 1	Disagree 2	Agree 3	Strongly agree 4	
19	Responsibility of how to integrate technology effectively is distributed amongst all staff members and co-ordinating committees.	22.2	16.4	30.0	31.4	2.71
20	The headteacher encourages staff to positively view the innovative idea of integrating technology in the classroom.	7.3	24.6	41.1	27.1	2.88
30	The headteacher shares decision making procedures with the staff as regards ways in which we can use technology to facilitate learning.	16.5	36.2	36.2	11.1	2.42
39	We collectively deal with the issue of technology in teaching during our meetings	10.2	31.9	41.1	16.9	2.65
44	The headteacher provides to the staff opportunities and resources for collaborative work.	7.3	24.6	42	26.1	2.87
Total						2.71

Table 7: Teachers' responses for "Contingent Reward"

		Percent				Mean
		Strongly disagree 1	Disagree 2	Agree 3	Strongly agree 4	
14	Teachers agree to integrate technology in their classes because headteachers are able to help them with their evaluation	52.8	27.1	14.5	5.8	1.73
27	The headteacher tells the staff to do something if they want to be rewarded for their work	80.2	13.5	5.8	0.5	1.27
29	The headteacher mentions in his reports which members of the staff use technology in their classes effectively.	20.8	28.5	34.8	15.9	2.46
32	The headteacher rewards the staff whenever he/she observes a good practice as regards the integration of technology.	35.8	29.0	25.6	9.7	2.09
34	Teachers of the school are treated by the headteacher according to their effort and the amount of work they produce.	52.2	27.5	16.4	3.9	1.72
Total						1.85

Table 8: Teachers' responses for "Management by Exception"

Items		Percent				Mean
		Strongly disagree 1	Disagree 2	Agree 3	Strongly agree 4	
16	The headteacher wants technology to be integrated his/her way.	68.6	23.2	5.8	2.4	1.42
26	Teachers always ask for the headteacher's consent before using a new way of using technology in their lesson.	59.9	30.0	8.2	1.9	1.52
35	The headteacher discourages staff from using the technology in ways that he/she doesn't agree with.	73.9	16.4	8.2	1.4	1.37
36	The headteacher watches how the staff integrate technology in their lessons and takes corrective action if needed.	33.4	43.5	21.3	1.9	1.91
40	The headteacher doesn't hesitate to make bad comments if he/she observes inappropriate practices of using technology.	50.7	30.9	15.9	2.4	1.70
Total						1.58

Table 9: Teachers' responses for "Passive leadership"

Items		Percent				Mean
		Strongly disagree 1	Disagree 2	Agree 3	Strongly agree 4	
6	The headteacher believes that staff don't have to integrate technology in their teaching as long as no problems appear from the existing methods they use.	50.8	30.4	16.9	1.9	1.70
9	The headteacher claims that he/she doesn't have time to deal with any problems that teachers might face as regards the use of technology in their lessons.	49.3	30.0	16.4	4.3	1.75
10	Teachers are responsible of how to integrate technology in their lessons therefore the headteacher doesn't deal with this issue.	25.1	31.4	33.8	9.7	2.28
15	The headteacher doesn't care about how staff will deal with the integration of technology in teaching.	55.6	25.1	15.5	3.9	1.68
17	Teachers can decide on how to integrate technology in their classes in whatever way they like without bearing in mind the headteacher's opinion.	28.0	27.1	29.0	15.9	2.32
Total						1.95

Appendix 7: Meetings held at schools

Ordinal Number of meeting	School 1 (Griky's school)	School 2 (Koham's school)	School 3 (Chriva's school)	School 4 (Lendi's school)	School 5 (Christof's school)
1 st	2/9/08	1/9/08	1/9/08	1/9/08	1/9/08
2 nd	3/9/08	2/9/08	2/9/08	2/9/08	3/9/08
3 rd	10/9/08	3/9/08	3/9/08	4/9/08	8/9/08
4 th	24/9/08	8/9/08	10/9/08	10/9/08	15/9/08
5 th	2/10/08	15/9/08	17/9/08	17/9/08	22/9/08
6 th	8/10/08	22/9/08	24/9/08	24/9/08	29/9/08
7 th	15/10/08	6/10/08	8/10/08	8/10/08	6/10/08
8 th	22/10/08	13/10/08	15/10/08	15/10/08	13/10/08
9 th	29/10/08	27/10/08	29/10/08	5/11/08	20/10/08
10 th	12/11/08	3/11/08	5/11/08	12/11/08	27/10/08
11 th	19/11/08	17/11/08	12/11/08	19/11/08	3/11/08
12 th	26/11/08	24/11/08	19/11/08	26/11/08	10/11/08
13 th	3/12/02	1/12/08	26/11/08	3/12/08	17/11/08
14 th	10/12/08	12/1/09	3/12/08	10/12/08	24/11/08
15 th	17/12/08	19/1/09	10/12/08	14/1/09	1/12/08
16 th	14/1/09	26/1/09	17/12/08	21/1/09	8/12/08
17 th	21/1/09	2/2/09	14/1/09	28/1/09	12/1/09
18 th	28/1/09	9/2/09	21/1/09	4/2/09	19/1/09
19 th	4/2/09	16/2/09	28/1/09	11/2/09	26/1/09
20 th	18/2/09	23/2/09	4/2/09	18/2/09	9/2/09
21 st	25/2/09	9/3/09	11/2/09	25/2/09	16/2/09
22 nd	4/3/09	16/3/09	18/2/09	4/3/09	23/2/09
23 rd	11/3/09	23/3/09	25/2/09	18/3/09	9/3/09
24 th	18/3/09	30/3/09	4/3/09	8/4/09	16/3/09
25 th	8/4/09	6/4/09	18/3/09	6/5/09	23/3/09
26 th	6/5/09	27/4/09	8/4/09	13/5/09	30/3/09
27 th	20/5/09	4/5/09	6/5/09	20/5/09	6/4/09
28 th	27/5/09	18/5/09	13/5/09	27/5/09	27/4/09
29 th	3/6/09	25/5/09	20/5/09	3/6/09	4/5/09
30 th		31/5/09	27/5/09	10/6/09	18/5/09
31 st		15/6/09	3/6/09		25/5/09
32 nd			10/6/09		1/6/09
33 rd					8/6/09

Note:

Staff meetings are usually held once a week with the exception of Christmas, Easter and Public holidays and, very rarely, days on which the headteacher decides that a meeting is not necessary to be held.

Appendix 8: Full list of the educational reforms suggested by the government of

Cyprus

1. Structure and content of school system

- Expansion of public free compulsory education from 10 to 12 years and creating a united twelve-year compulsory education
- Updating the content of education, developing new curricula from kindergarten through high school and producing new or additional textbooks and teaching materials
- Establishment of the Scientific Committee for the modernization of curricula (curricula, curriculum)
- Introduction of new teaching methods

2. Structure - Management education system

- Decentralization of responsibilities to districts and schools
- Redesign of operation of the District Education Offices
- Create a new executive structure and development of horizontal structures on interdisciplinary interest
- Introduction of computer systems to standardize and speed up bureaucratic procedures
- Role of School Committees

3. Structure - Management of schools

- Reorganization of the management system of schools
- Selection and training of school managers-leaders

4. Recruitment of schools

- Differentiation of the rules for teachers' transfers
- Ensuring stability of teaching staff
- Measures for timely recruitment of school staff

5. System of appointing teachers

- Modernization and improvement of inventory waiting to be appointed

6. Teacher education

- Design and introduction of specialized training programs that meet the needs of the education system, schools and teachers for each stage of their careers
- Incentives for attendance of postgraduate training
- Programs of periodic mandatory training of experienced teachers
- Optional Training Programs
- Special education training program

7. Evaluation of teachers and educational work

- New teacher evaluation plan and educational work
- Development of a system of internal evaluation of the work of school
- Creating alternative levels of educational advancement

8. Pre-primary education

- Extension of free compulsory public pre-school education for one year
- Extension of voluntary all-day kindergarten
- Pilot implementation of the mandatory single-day kindergarten

9. Primary education

- Improvement and expansion of the mandatory all-day primary school
- Upgrading the optional all-day primary schools

10. Secondary General and Technical Education

- Consolidation of Secondary General Education and Technical Training in a new form high school
- Introducing the all-day school
- Upgrading the office of Head of Department
- Creating cooperation programs between secondary schools and universities
- Modernization of the apprenticeship system

11. Higher education

- Development and expansion of public university education
- Creation of new undergraduate and graduate programs
- Ensure that private universities have the responsibility to serve the public mission and offer quality courses
- Providing incentives to private universities operate as a non-profit institutions
- Student welfare and prosperity
- Create one law on higher education
- Establishment of Agency for External Quality Assurance and Accreditation and the Recognition of Academic Qualifications
- Introduction of a National Qualification Framework
- Prepare a national policy on research and development

12. Lifelong Learning

- Upgrading the Cyprus Open University
- Establishment and operation of post-secondary vocational training institutes
- Modernization and upgrading of the Evening School of Government Training Institutes and Training Centers
- Operation of Open School

13. **Special education**

- Evaluation and updating of the legislation on Special Education
- Improvement of early detection procedures and support for children with special needs
- Upgrading of special schools
- Create centers for providing therapy to children with disabilities in the afternoons

14. **Addressing student delinquency**

- Establishment of Scientific Committee
- Introduction of health education in all classes
- Upgrading of Educational Psychology Service
- Upgrading of school sports and cultural creation and development focusing on school

15. **Multicultural Education**

- Training teachers in intercultural education
- Offer courses for helping foreign. language students
- Teaching mother tongue to foreign language students
- Promotion of the European and global dimension of education
- Planning of a policy for communal contacts and programs

16. **Tackling school failure**

- Development of an integrated policy to tackle school failure
- Expansion of Educational Priority Areas
- All day operation of schools (kindergartens, primary schools) that are part of the Educational Priority Areas
- Early detection and treatment of literacy problems starting at primary age

17. **Information and Communication Technologies**

- Preparation of Strategic Planning for ICT
- Continue and expand programs for training teachers in information technology and communications
- Using ICT as a learning tool
- Operation School Online

18. **Logistics**

- Build a program for new construction and improvement, renovation and expansion of existing schools
- Create standards and specifications for school buildings ecological character and "educational architecture"
- Upgrading of Technical Services
- Safety of school buildings

19. **Environmental education**

- Center for Environmental Education (CEE)

20. **Private Schools**

- Modernization of the legislation for private schools from pre-school to upper secondary education

Adopted and translated by the official website of the Ministry of Education and Culture:
http://www.paideia.org.cy/index.php?option=com_content&task=view&id=5&Itemid=27

Appendix 9: Table used for sampling

Name of District.....

Urban		Rural	
Big	Small	Big	Small