The possibility of Applying Senge’s Learning Organization Principles in Irbid Public High Schools As Perceived By Principals and Teachers

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Introduction:

Recent institutions, regardless their different types, face many challenges and risks concerning achieving their goals and even existence. These challenges and risks appear because of the vast and fast changes of the around environment and the technical and technological revolution which distinguish the current millennium. Therefore, it is noticed that different types of institutions started to search for suitable solutions for the problems they face and try to adjust with the new global accelerating developments. Furthermore, the globalization and the technological innovations forced new situations which made the institutions adopt new concepts and administrative practices in order cope up with the new changes and developments like “systems thinking” and ”learning organization”. For example, many industrial institutions started to transfer its efforts toward learning organizations, which are recognized mainly for teamwork basing on the long life learning (Albakri, 2006).

The idea of “learning organization” transferred from the industrial field to appear in the educational institutions (schools, colleges, universities) to make them able to exist, compete and adapt with the new global changes and challenges. In addition, to make them able to possess the ability to develop their employees abilities toward team work through the system learning and the constant supervised training.

The first suggested perception of the future school is the learning school, which focuses on the idea of constant education, or in other words, long-life learning for all. Skribner and others (Skribner et al,1999) pointed out that schools should possess a number of characteristics in order to be ‘Learning Schools” like applying some common values, focusing on team efforts in teaching students, paying attention to creative and inspiring discussions and putting aside the personal aspects focusing on the general interests of the school.

In 1990 Peter Senge has made a revolution in the concept of “Learning Organization” when he published his book” The Fifth Discipline: The art and Practice of the Learning”. After that, in 1994, Senge and Sparks wrote a book where they applied Senge’s five principles in administrative organization. Senge proposed another book “schools that Learn” (Senge 1990, 2000) in which he applied the five principles on different schools.

The five principles as Senge proposed are:

1. Systems Thinking
2. Personal Mastery
3. Mental Models
4. Building shared Vision
5. Team Learning

Senge and his colleagues (Senge et al 2000) explained that these principles form a long-term program that is practiced by individuals and teams at school in order to improve their educational abilities. Senge pointed out that the ideal principled science could be achieved when all employees at school do their best to improve their abilities to achieve their goals. He added that school learning could be take place in class rooms, at schools and in the local society.

The learning organization

According to Peter Senge (1990: 3) learning organizations are:

…organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together.

The basic rationale for such organizations is that in situations of rapid change only those that are flexible, adaptive and productive will excel. For this to happen, it is argued, organizations need to ‘discover how to tap people’s commitment and capacity to learn at all levels’ (ibid.: 4).

While all people have the capacity to learn, the structures in which they have to function are often not conducive to reflection and engagement. Furthermore, people may lack the tools and guiding ideas to make sense of the situations they face. Organizations that are continually expanding their capacity to create their future require a fundamental shift of mind among their members.

When you ask people about what it is like being part of a great team, what is most striking is the meaningfulness of the experience. People talk about being part of something larger than themselves, of being connected, of being generative. It become quite clear that, for many, their experiences as part of truly great teams stand out as singular periods of life lived to the fullest. Some spend the rest of their lives looking for ways to recapture that spirit. (Senge 1990: 13)

For Peter Senge, real learning gets to the heart of what it is to be human. We become able to re-create ourselves. This applies to both individuals and organizations. Thus, for a ‘learning organization it is not enough to survive. “Survival learning” or what is more often termed “adaptive learning” is important – indeed it is necessary. But for a learning organization, “adaptive learning” must be joined by “generative learning”, learning that enhances our capacity to create’ (Senge 1990:14).

The dimension that distinguishes learning from more traditional organizations is the mastery of certain basic disciplines or ‘component technologies’. The five that Peter Senge identifies are said to be converging to innovate learning organizations. They are:

Systems thinking

Personal mastery

Mental models

Building shared vision
Team learning

He adds to this recognition that people are agents, able to act upon the structures and systems of which they are a part. All the disciplines are, in this way, ‘concerned with a shift of mind from seeing parts to seeing wholes, from seeing people as helpless reactors to seeing them as active participants in shaping their reality, from reacting to the present to creating the future’ (Senge 1990: 69). It is to the disciplines that we will now turn.

Systems thinking – the cornerstone of the learning organization

A great virtue of Peter Senge’s work is the way in which he puts systems theory to work. The Fifth Discipline provides a good introduction to the basics and uses of such theory – and the way in which it can be brought together with other theoretical devices in order to make sense of organizational questions and issues. Systemic thinking is the conceptual cornerstone (‘The Fifth Discipline’) of his approach. It is the discipline that integrates the others, fusing them into a coherent body of theory and practice (ibid.: 12). Systems theory’s ability to comprehend and address the whole, and to examine the interrelationship between the parts provides, for Peter Senge, both the incentive and the means to integrate the disciplines.

Here is not the place to go into a detailed exploration of Senge’s presentation of systems theory (I have included some links to primers below). However, it is necessary to highlight one or two elements of his argument. First, while the basic tools of systems theory are fairly straightforward they can build into sophisticated models. Peter Senge argues that one of the key problems with much that is written about, and done in the name of management, is that rather simplistic frameworks are applied to what are complex systems. We tend to focus on the parts rather than seeing the whole, and to fail to see organization as a dynamic process. Thus, the argument runs, a better appreciation of systems will lead to more appropriate action.

‘We learn best from our experience, but we never directly experience the consequences of many of our most important decisions’, Peter Senge (1990: 23) argues with regard to organizations. We tend to think that cause and effect will be relatively near to one another. Thus when faced with a problem, it is the ‘solutions’ that are close by that we focus upon. Classically we look to actions that produce improvements in a relatively short time span. However, when viewed in systems terms short-term improvements often involve very significant long-term costs. For example, cutting back on research and design can bring very quick cost savings, but can severely damage the long-term viability of an organization. Part of the problem is the nature of the feedback we receive. Some of the feedback will be reinforcing (or amplifying) – with small changes building on themselves. ‘Whatever movement occurs is amplified, producing more movement in the same direction. A small action snowballs, with more and more and still more of the same, resembling compound interest’ (Senge 1990: 81). Thus, we may cut our advertising budgets, see the benefits in terms of cost savings, and in turn further trim spending in this area. In the short run there may be little impact on people’s demands for our goods and services, but longer term the decline in visibility may have severe penalties. An appreciation of systems will lead to recognition of the use of, and problems with, such reinforcing feedback, and also an understanding of the place of balancing (or stabilizing) feedback. (See, also Kurt Lewin on feedback). A further key aspect of systems is the extent to which they inevitably involve delays – ‘interruptions in the flow of
influence which make the consequences of an action occur gradually’ (ibid.: 90). Peter Senge (1990: 92) concludes:

The systems viewpoint is generally oriented toward the long-term view. That’s why delays and feedback loops are so important. In the short term, you can often ignore them; they’re inconsequential. They only come back to haunt you in the long term.

Peter Senge advocates the use of ‘systems maps’ – diagrams that show the key elements of systems and how they connect. However, people often have a problem ‘seeing’ systems, and it takes work to acquire the basic building blocks of systems theory, and to apply them to your organization. On the other hand, failure to understand system dynamics can lead us into ‘cycles of blaming and self-defense: the enemy is always out there, and problems are always caused by someone else’ Bolam and Deal 1997: 27; see, also, Senge 1990: 231).

The core disciplines

Alongside systems thinking, there stand four other ‘component technologies’ or disciplines. A ‘discipline’ is viewed by Peter Senge as a series of principles and practices that we study, master and integrate into our lives. The five disciplines can be approached at one of three levels:


Principles: guiding ideas and insights.

Essences: the state of being those with high levels of mastery in the discipline (Senge 1990: 373).

Each discipline provides a vital dimension. Each is necessary to the others if organizations are to ‘learn’.

Personal mastery. ‘Organizations learn only through individuals who learn. Individual learning does not guarantee organizational learning. But without it no organizational learning occurs’ (Senge 1990: 139). Personal mastery is the discipline of continually clarifying and deepening our personal vision, of focusing our energies, of developing patience, and of seeing reality objectively’ (ibid.: 7). It goes beyond competence and skills, although it involves them. It goes beyond spiritual opening, although it involves spiritual growth (ibid.: 141). Mastery is seen as a special kind of proficiency. It is not about dominance, but rather about calling. Vision is vocation rather than simply just a good idea.

People with a high level of personal mastery live in a continual learning mode. They never ‘arrive’. Sometimes, language, such as the term ‘personal mastery’ creates a misleading sense of definiteness, of black and white. But personal mastery is not something you possess. It is a process. It is a lifelong discipline. People with a high level of personal mastery are acutely aware of their ignorance, their incompetence, their growth areas. And they are deeply self-confident. Paradoxical? Only for those who do not see the ‘journey is the reward’. (Senge 1990: 142)

In writing such as this we can see the appeal of Peter Senge’s vision. It has deep echoes in the concerns of writers such as M. Scott Peck (1990) and Erich Fromm (1979). The discipline entails developing personal vision; holding creative tension (managing the gap between our vision and reality); recognizing structural tensions and constraints, and our own power (or lack of it) with regard to them; a
Mental models. These are ‘deeply ingrained assumptions, generalizations, or even pictures and images that influence how we understand the world and how we take action’ (Senge 1990: 8). As such they resemble what Donald A Schön talked about as a professional’s ‘repertoire’. We are often not that aware of the impact of such assumptions etc. on our behaviour – and, thus, a fundamental part of our task (as Schön would put it) is to develop the ability to reflect-in- and –on-action. Peter Senge is also influenced here by Schön’s collaborator on a number of projects, Chris Argyris.

The discipline of mental models starts with turning the mirror inward; learning to unearth our internal pictures of the world, to bring them to the surface and hold them rigorously to scrutiny. It also includes the ability to carry on ‘learningful’ conversations that balance inquiry and advocacy, where people expose their own thinking effectively and make that thinking open to the influence of others. (Senge 1990: 9)

If organizations are to develop a capacity to work with mental models then it will be necessary for people to learn new skills and develop new orientations, and for their to be institutional changes that foster such change. ‘Entrenched mental models… thwart changes that could come from systems thinking’ (ibid.: 203). Moving the organization in the right direction entails working to transcend the sorts of internal politics and game playing that dominate traditional organizations. In other words it means fostering openness (Senge 1990: 273-286). It also involves seeking to distribute business responsibly far more widely while retaining coordination and control. Learning organizations are localized organizations (ibid.: 287-301).

Building shared vision. Peter Senge starts from the position that if any one idea about leadership has inspired organizations for thousands of years, ‘it’s the capacity to hold a share picture of the future we seek to create’ (1990: 9). Such a vision has the power to be uplifting – and to encourage experimentation and innovation. Crucially, it is argued, it can also foster a sense of the long-term, something that is fundamental to the ‘fifth discipline’.

When there is a genuine vision (as opposed to the all-to-familiar ‘vision statement’), people excel and learn, not because they are told to, but because they want to. But many leaders have personal visions that never get translated into shared visions that galvanize an organization… What has been lacking is a discipline for translating vision into shared vision – not a ‘cookbook’ but a set of principles and guiding practices.

The practice of shared vision involves the skills of unearthing shared ‘pictures of the future’ that foster genuine commitment and enrolment rather than compliance. In mastering this discipline, leaders learn the counter-productiveness of trying to dictate a vision, no matter how heartfelt. (Senge 1990: 9)

Visions spread because of a reinforcing process. Increased clarity, enthusiasm and commitment rub off on others in the organization. ‘As people talk, the vision grows clearer. As it gets clearer, enthusiasm for its benefits grow’ (ibid.: 227). There are ‘limits to growth’ in this respect, but developing the sorts of mental models outlined above can significantly improve matters. Where organizations can transcend linear and grasp system thinking, there is the possibility of bringing vision to fruition.

Team learning. Such learning is viewed as ‘the process of aligning and developing the capacities of a
team to create the results its members truly desire’ (Senge 1990: 236). It builds on personal mastery and shared vision – but these are not enough. People need to be able to act together. When teams learn together, Peter Senge suggests, not only can there be good results for the organization, members will grow more rapidly than could have occurred otherwise.

The discipline of team learning starts with ‘dialogue’, the capacity of members of a team to suspend assumptions and enter into a genuine ‘thinking together’. To the Greeks dia-logos meant a free-flowing if meaning through a group, allowing the group to discover insights not attainable individually…. [It] also involves learning how to recognize the patterns of interaction in teams that undermine learning. (Senge 1990: 10)

The notion of dialogue that flows through The Fifth Discipline is very heavily dependent on the work of the physicist, David Bohm (where a group ‘becomes open to the flow of a larger intelligence’, and thought is approached largely as collective phenomenon). When dialogue is joined with systems thinking, Senge argues, there is the possibility of creating a language more suited for dealing with complexity, and of focusing on deep-seated structural issues and forces rather than being diverted by questions of personality and leadership style. Indeed, such is the emphasis on dialogue in his work that it could almost be put alongside systems thinking as a central feature of his approach.

Leading the learning organization

Peter Senge argues that learning organizations require a new view of leadership. He sees the traditional view of leaders (as special people who set the direction, make key decisions and energize the troops as deriving from a deeply individualistic and non-systemic worldview (1990: 340). At its centre the traditional view of leadership, ‘is based on assumptions of people’s powerlessness, their lack of personal vision and inability to master the forces of change, deficits which can be remedied only by a few great leaders’ ( op. cit.). Against this traditional view he sets a ‘new’ view of leadership that centers on ‘subtler and more important tasks’.

In a learning organization, leaders are designers, stewards and teachers. They are responsible for building organizations were people continually expand their capabilities to understand complexity, clarify vision, and improve shared mental models – that is they are responsible for learning…. Learning organizations will remain a ‘good idea’… until people take a stand for building such organizations. Taking this stand is the first leadership act, the start of inspiring (literally ‘to breathe life into’) the vision of the learning organization. (Senge 1990: 340)

Many of the qualities that Peter Senge discusses with regard to leading the learning organization can be found in the shared leadership model (discussed elsewhere on these pages). For example, what Senge approaches as inspiration, can be approached as animation. Here we will look at the three aspects of leadership that he identifies – and link his discussion with some other writers on leadership.

Leader as designer. The functions of design are rarely visible, Peter Senge argues, yet no one has a more sweeping influence than the designer (1990: 341). The organization’s policies, strategies and ‘systems’ are key area of design, but leadership goes beyond this. Integrating the five component technologies is fundamental. However, the first task entails designing the governing ideas – the purpose, vision and core values by which people should live. Building a shared vision is crucial early on as it ‘fosters a long-term orientation and an imperative for learning’ ( ibid.: 344). Other disciplines also
need to be attended to, but just how they are to be approached is dependent upon the situation faced. In essence, ‘the leaders’ task is designing the learning processes whereby people throughout the organization can deal productively with the critical issues they face, and develop their mastery in the learning disciplines’ (ibid.: 345).

Leader as steward. While the notion of leader as steward is, perhaps, most commonly associated with writers such as Peter Block (1993), Peter Senge has some interesting insights on this strand. His starting point was the ‘purpose stories’ that the managers he interviewed told about their organization. He came to realize that the managers were doing more than telling stories, they were relating the story: ‘the overarching explanation of why they do what they do, how their organization needs to evolve, and how that evolution is part of something larger’ (Senge 1990: 346). Such purpose stories provide a single set of integrating ideas that give meaning to all aspects of the leader’s work – and not unexpectedly, ‘the leader develops a unique relationship to his or her own personal vision. He or she becomes a steward of the vision’ (op. cit.). One of the important things to grasp here is that stewardship involves a commitment to, and responsibility for the vision, but it does not mean that the leader owns it. It is not their possession. Leaders are stewards of the vision, their task is to manage it for the benefit of others (hence the subtitle of Block’s book – ‘Choosing service over self-interest’). Leaders learn to see their vision as part of something larger. Purpose stories evolve as they are being told, ‘in fact, they are as a result of being told’ (Senge 1990: 351). Leaders have to learn to listen to other people’s vision and to change their own where necessary. Telling the story in this way allows others to be involved and to help develop a vision that is both individual and shared.

Leader as teacher. Peter Senge starts here with Max de Pree’s (1990) injunction that the first responsibility of a leader is to define reality. While leaders may draw inspiration and spiritual reserves from their sense of stewardship, ‘much of the leverage leaders can actually exert lies in helping people achieve more accurate, more insightful and more empowering views of reality (Senge 1990: 353). Building on an existing ‘hierarchy of explanation’ leaders, Peter Senge argues, can influence people’s view of reality at four levels: events, patterns of behavior, systemic structures and the ‘purpose story’. By and large most managers and leaders tend to focus on the first two of these levels (and under their influence organizations do likewise). Leaders in learning organizations attend to all four, ‘but focus predominantly on purpose and systemic structure. Moreover they “teach” people throughout the organization to do likewise’ (Senge 1993: 353). This allows them to see ‘the big picture’ and to appreciate the structural forces that condition behavior. By attending to purpose, leaders can cultivate an understanding of what the organization (and its members) are seeking to become. One of the issues here is that leaders often have strengths in one or two of the areas but are unable, for example, to develop systemic understanding. A key to success is being able to conceptualize insights so that they become public knowledge, ‘open to challenge and further improvement’ (ibid.: 356).

“Leader as teacher” is not about “teaching” people how to achieve their vision. It is about fostering learning, for everyone. Such leaders help people throughout the organization develop systemic understandings. Accepting this responsibility is the antidote to one of the most common downfalls of otherwise gifted teachers – losing their commitment to the truth. (Senge 1990: 356)

Leaders have to create and manage creative tension – especially around the gap between vision and reality. Mastery of such tension allows for a fundamental shift. It enables the leader to see the truth in changing situations.
Issues and problems

When making judgments about Peter Senge’s work, and the ideas he promotes, we need to place his contribution in context. This is not meant to be a definitive addition to the ‘academic’ literature of organizational learning. Peter Senge writes for practicing and aspiring managers and leaders. The concern is to identify how interventions can be made to turn organizations into ‘learning organizations’. Much of his, and similar theorists’ efforts, have been ‘devoted to identifying templates, which real organizations could attempt to emulate’ (Easterby-Smith and Araujo 1999: 2). In this field some of the significant contributions have been based around studies of organizational practice, others have ‘relied more on theoretical principles, such as systems dynamics or psychological learning theory, from which implications for design and implementation have been derived’ (op. cit.). Peter Senge, while making use of individual case studies, tends to the latter orientation.

The most appropriate question in respect of this contribution would seem to be whether it fosters praxis— informed, committed action on the part of those it is aimed at? This is an especially pertinent question as Peter Senge looks to promote a more holistic vision of organizations and the lives of people within them. Here we focus on three aspects. We start with the organization.

Organizational imperatives. Here the case against Peter Senge is fairly simple. We can find very few organizations that come close to the combination of characteristics that he identifies with the learning organization. Within a capitalist system his vision of companies and organizations turning wholehearted to the cultivation of the learning of their members can only come into fruition in a limited number of instances. While those in charge of organizations will usually look in some way to the long-term growth and sustainability of their enterprise, they may not focus on developing the human resources that the organization houses. The focus may well be on enhancing brand recognition and status (Klein 2001); developing intellectual capital and knowledge (Leadbeater 2000); delivering product innovation; and ensuring that production and distribution costs are kept down. As Will Hutton (1995: has argued, British companies’ priorities are overwhelmingly financial. What is more, ‘the targets for profit are too high and time horizons too short’ (1995: xi). Such conditions are hardly conducive to building the sort of organization that Peter Senge proposes. Here the case against Senge is that within capitalist organizations, where the bottom line is profit, a fundamental concern with the learning and development of employees and associates is simply too idealistic.

Yet there are some currents running in Peter Senge’s favor. The need to focus on knowledge generation within an increasingly globalized economy does bring us back in some important respects to the people who have to create intellectual capital.

Productivity and competitiveness are, by and large, a function of knowledge generation and information processing: firms and territories are organized in networks of production, management and distribution; the core economic activities are global – that is they have the capacity to work as a unit in real time, or chosen time, on a planetary scale. (Castells 2001: 52)

A failure to attend to the learning of groups and individuals in the organization spells disaster in this context. As Leadbeater (2000: 70) has argued, companies need to invest not just in new machinery to make production more efficient, but in the flow of know-how that will sustain their business. Organizations need to be good at knowledge generation, appropriation and exploitation. This process is not that easy:
Knowledge that is visible tends to be explicit, teachable, independent, detachable, it also easy for competitors to imitate. Knowledge that is intangible, tacit, less teachable, less observable, is more complex but more difficult to detach from the person who created it or the context in which it is embedded. Knowledge carried by an individual only realizes its commercial potential when it is replicated by an organization and becomes organizational knowledge. (ibid.: 71)

Here we have a very significant pressure for the fostering of ‘learning organizations’. The sort of know-how that Leadbeater is talking about here cannot be simply transmitted. It has to be engaged with, talking about and embedded in organizational structures and strategies. It has to become people’s own.

A question of sophistication and disposition. One of the biggest problems with Peter Senge’s approach is nothing to do with the theory, it’s rightness, nor the way it is presented. The issue here is that the people to whom it is addressed do not have the disposition or theoretical tools to follow it through. One clue lies in his choice of ‘disciplines’ to describe the core of his approach. As we saw a discipline is a series of principles and practices that we study, master and integrate into our lives. In other words, the approach entails significant effort on the part of the practitioner. It also entails developing quite complicated mental models, and being able to apply and adapt these to different situations – often on the hoof. Classically, the approach involves a shift from product to process (and back again). The question then becomes whether many people in organizations can handle this. All this has a direct parallel within formal education. One of the reasons that product approaches to curriculum (as exemplified in the concern for SATs tests, examination performance and school attendance) have assumed such a dominance is that alternative process approaches are much more difficult to do well. They may be superior – but many teachers lack the sophistication to carry them forward. There are also psychological and social barriers. As Lawrence Stenhouse put it some years ago: ‘The close examination of one’s professional performance is personally threatening; and the social climate in which teachers work generally offers little support to those who might be disposed to face that threat’ (1975: 159). We can make the same case for people in most organizations.

The process of exploring one’s performance, personality and fundamental aims in life (and this is what Peter Senge is proposing) is a daunting task for most people. To do it we need considerable support, and the motivation to carry the task through some very uncomfortable periods. It calls for the integration of different aspects of our lives and experiences. There is, here, a straightforward question concerning the vision – will people want to sign up to it? To make sense of the sorts of experiences generated and explored in a fully functioning ‘learning organization’ there needs to be ‘spiritual growth’ and the ability to locate these within some sort of framework of commitment. Thus, as employees, we are not simply asked to do our jobs and to get paid. We are also requested to join in something bigger. Many of us may just want to earn a living!

Politics and vision. Here we need to note two key problem areas. First, there is a question of how Peter Senge applies systems theory. While he introduces all sorts of broader appreciations and attends to values – his theory is not fully set in a political or moral framework. There is not a consideration of questions of social justice, democracy and exclusion. His approach largely operates at the level of organizational interests. This is would not be such a significant problem if there was a more explicit vision of the sort of society that he would like to see attained, and attention to this with regard to
management and leadership. As a contrast we might turn to Peter Drucker’s (1977: 36) elegant discussion of the dimensions of management. He argued that there are three tasks – ‘equally important but essentially different’ – that face the management of every organization. These are:

To think through and define the specific purpose and mission of the institution, whether business enterprise, hospital, or university.

To make work productive and the worker achieving.

To manage social impacts and social responsibilities. (op. cit.)

He continues:

None of our institutions exists by itself and as an end in itself. Every one is an organ of society and exists for the sake of society. Business is not exception. ‘Free enterprise’ cannot be justified as being good for business. It can only be justified as being good for society. (Drucker 1977: 40)

If Peter Senge had attempted greater connection between the notion of the ‘learning organization’ and the ‘learning society’, and paid attention to the political and social impact of organizational activity then this area of criticism would be limited to the question of the particular vision of society and human flourishing involved.

Second, there is some question with regard to political processes concerning his emphasis on dialogue and shared vision. While Peter Senge clearly recognizes the political dimensions of organizational life, there is sneaking suspicion that he may want to transcend it. In some ways there is link here with the concerns and interests of communitarian thinkers like Amitai Etzioni (1995, 1997). As Richard Sennett (1998: 143) argues with regard to political communitarians, it ‘falsely emphasizes unity as the source of strength in a community and mistakenly fears that when conflicts arise in a community, social bonds are threatened’. Within it (and arguably aspects of Peter Senge’s vision of the learning organization) there seems, at times, to be a dislike of politics and a tendency to see danger in plurality and difference. Here there is a tension between the concern for dialogue and the interest in building a shared vision. An alternative reading is that difference is good for democratic life (and organizational life) provided that we cultivate a sense of reciprocity, and ways of working that encourage deliberation. The search is not for the sort of common good that many communitarians seek (Guttman and Thompson 1996: 92) but rather for ways in which people may share in a common life. Moral disagreement will persist – the key is whether we can learn to respect and engage with each other’s ideas, behaviors and beliefs.

**Conclusion**

John van Maurik (2001: 201) has suggested that Peter Senge has been ahead of his time and that his arguments are insightful and revolutionary. He goes on to say that it is a matter of regret ‘that more organizations have not taken his advice and have remained geared to the quick fix’. As we have seen there are very deep-seated reasons why this may have been the case. Beyond this, though, there is the question of whether Senge’s vision of the learning organization and the disciplines it requires has contributed to more informed and committed action with regard to organizational life? Here we have little concrete evidence to go on. However, we can make some judgments about the possibilities of his
theories and proposed practices. We could say that while there are some issues and problems with his conceptualization, at least it does carry within it some questions around what might make for human flourishing. The emphases on building a shared vision, team working, personal mastery and the development of more sophisticated mental models and the way he runs the notion of dialogue through these does have the potential of allowing workplaces to be more convivial and creative. The drawing together of the elements via the Fifth Discipline of systemic thinking, while not being to everyone’s taste, also allows us to approach a more holistic understanding of organizational life (although Peter Senge does himself stop short of asking some important questions in this respect). These are still substantial achievements – and when linked to his popularizing of the notion of the ‘learning organization’ – it is understandable why Peter Senge has been recognized as a key thinker.

In Jordan, the focus on the educational development in the educational institutions started to emerge. In 1987, the first educational developmental concert was held. It focused on different educational developmental dimensions (like curriculum, assessment tools, teachers, school building, school administration and financial supports) and on school as a basic unites for the social and educational development. Furthermore, to cope up with the global technological developments, the Ministry of Education in Jordan geared its focus on the developments of the educational sector through revising the educational plans and programs in order to set a future educational vision for the Jordanian educational system.

Question:

This study aims at answering the following questions:

1. What are the perceptions the principals of Irbid high public schools with regard to the application of Peter Senge’s learning organization principles?

2. Are there any statistically significant differences at (α=0.05) in the perceptions of high public schools principals and teachers in Irbid district regarding the application of Senge’s learning organization principles related to (social type, qualification, and experience)?

3. What are the suggestions of the principals and teachers of high public schools in Irbid district in order to apply Senge’s learning organization principles?

Purpose of the study:

1. To be acquainted with the possibility of applying Senge’s learning organization principles in Irbid high public schools as seen by principals and teachers

2. To be acquainted with the individual differences of the participants about the possibility of applying Senge’s learning organization principles in Irbid high public schools related to the social type, experience and qualification

3. To be acquainted with the suggestions presented by principals and teachers in Irbid high public schools regarding the possibilities of applying Senge’s learning organization principles

Significance of the study:
The significant of the study is revealed through the following:

- find out the available capacity of the high public schools in Irbid district to apply Senge’s learning organization principles

- Highlighting the importance of applying Senge’s learning organization principles in high public schools in Jordan and using the findings of this study to help authoritative people in the Ministry of Education in applying these concepts as they have positive reflection on the schools’ success to achieve their educational and social goals.

Limitations of the study:

- This study is exclusive to (97) principals and teachers of high public schools in Irbid district in the academic year (2008/2009).

- This study is also exclusive to the despondence responses regarding to the possibility of applying the principles of learning organization on Irbid high public schools in the fields identified in the study instrument.

Hypothesis of the study:

- Principals and teachers of high public schools do not have perceptions for applying Senge's learning organization principles on Irbid high public schools.

- The perceptions of applying Senge’s learning organization principles on Irbid high public schools do not change depending on the different variables of the study (social type, qualifications, experience).

Definitions of terms:

- Learning organization: stands for the computers, the internet and the websites and employing them positively to achieve the different administrative and educational tasks of schools to improve the educational process

- Principals of high schools: the people who are appointed as principals of high public schools and whose jobs are specified by the Jordanian Ministry of Education in accordance with regulations and laws.

Method and Procedures:

Population and sample of the study:

The population of the study comprises all Irbid high school male and female principals (247) and male and female teachers (4800) in the academic year (2008/ 2009). The sample comprises (150) male and female principals (60.7%) and (700) male and female teachers (14.5). table (1) shows the distribution of the participants in light of its variables.

Table (1)

The Number and Percentages of the Participants of the Study According to Gender, Qualification and
<table>
<thead>
<tr>
<th>Variables</th>
<th>Categories</th>
<th></th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social type</td>
<td>Principals</td>
<td>Male</td>
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</tr>
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<tr>
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<td>380</td>
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<tr>
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<td>Female</td>
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<td></td>
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<tr>
<td></td>
<td>Teachers</td>
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<td>Higher than BA</td>
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<tr>
<td>experience</td>
<td>Principals</td>
<td>1-5 years</td>
<td>30</td>
</tr>
<tr>
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<td>More than 5-10</td>
<td>43</td>
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<tr>
<td></td>
<td></td>
<td>More than 10</td>
<td>87</td>
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<td>total</td>
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</tr>
<tr>
<td></td>
<td>Teachers</td>
<td>1-5 years</td>
<td>120</td>
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</table>
Research Instrument:

The instrument of the study has been designed depending on related literature about learning organization issue. The instrument has comprised (62) items. To ensure the validity and reliability of the research instrument to be (58) items, the researcher has presented them to a number of colleagues at the faculty of education at Yarmouk University, Jordan University and Al- Elbeit University. Their attitudes regarding deletion, addition, modification of some items and their relation to specific domains have been taken into account.

The researcher has met some referees to ask them about some items in the instrument. Some items have been deleted or modified concerning the decisions of the referees. The items of the instrument have been distributed over five domains: systems thinking (14) items, personal mastery (15) items, mental models (11) items, building shared vision (8) items and team learning (10) items.

The researcher has used a five-scale measurement regarding Likert scale (very high degree, high degree, moderate degree, low degree, and very low degree) and given the measurements (1, 2, 3, 4, 5), in order to find out the perceptions of Irbid high school male and female principals with regard to the application of Senge’s principles in learning organizations.

In order to ensure the reliability of the instrument, the researcher has applied it on (25) principals from outside the sample. The application has been repeated after two weeks. Correlation factor of each item has been measured. Cronbach α factor for internal consistency has been measured as it appears in table (2).

Table (2)

<table>
<thead>
<tr>
<th>domain</th>
<th>Test-retest reliability (T test)</th>
<th>Internal consistency (cronbach α)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systems thinking</td>
<td>0.88</td>
<td>0.85</td>
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</table>
It is noticed in table (2) that the total reliability measurements are high that the correlation factor stands for (0.95). In addition, the internal consistency factor stands for (0.94), which means that the instrument of the study is valid and acceptable for the purpose of conducting the study.

Variables of the Study

1. Independent variables:
   - social type (male/female)
   - Qualification (bachelor, higher than bachelor).
   - Experience (1-5 years, 5-10 years, more than 10 years).

Statistical Treatment:

The means and the standard deviations of each item of the questionnaire have been measured. T test, alpha Cronbach, one way ANOVA and Tukey for post hoc comparisons have been used in two independent samples.

First: Findings related to the first question of the study: what are the perceptions of the public high school principals in applying Peter Senge’s learning organization?

- Means and standard deviations were calculated for the thirty items included in the questionnaire which were distributed into the five domains related to Senge’s learning organization. It showed that high school principals perceived these principals with an above average degree. It showed also that their ranking for the five domains came with and above average degree as listed as follows:

1. Building shared vision, with a mean of (3.45).
2. Team learning, with a mean of (3.41).
3. Personal mastery, with a mean of (3.33).
4. System thinking, with a mean of (3.32).

5. Mental models, with a mean of (3.30).

- In order to show which items achieved the highest means as perceived by high school principals? With means ranging between (3.44-3.3) as listed bellow:

1. Having a strong school leadership.

2. Encouraging a cooperative team work.

3. Providing a suitable educational communication channel with the local community.

4. Providing a suitable school environment to support creativity.

5. Providing a suitable and a comfortable learning environment.

- It also showed the items that achieved a below average degree statistical means ranging between (2.44-2.31`), as perceive by the high school principals, listed as follows:

1. Maintaining school community partnership.

2. Encouraging mental thought models at learning settings.

3. Giving a chance for community leaders to share school vision and objectives.

4. Encouraging creative educational ideas.

5. Providing modern technology program at school.

- School teacher perception for the five domains came as like as the perception of the high school principal with an above average degree as listed as follows:

1. Mental models, with a mean of (3.51).

2. Team learning, with a mean of (3.50).

3. System thinking, with a mean of (3.40).

4. Building shared vision, with a mean of (3.39).

5. Personal mastery, with a mean of (3.30).

In order to show which items achieved the highest statistical means as perceived by school teachers? With means ranging between (3.51-3.29) as listed as follows:

1. Having a future school vision and clear objectives.

2. Providing a suitable school learning environment.

3. Providing a good communication system at school.
4. Having a strong school leadership.

5. Encouraging a cooperative team work at school.

It also showed that the items which achieve the below average statistical means, ranging between (2.23-2.19) as perceived by the school teachers as listed as follows:

1. Having a convincing educational media at school.

2. Linking school programs with community needs.

3. Applying a productive educational technology program at school.

4. Introducing creative educational ideas.

5. Improving the communication school system.

Second: Findings related to the third question.

The suitable statistical treatment have been applied such as (one-way ANOVA, and Tukey), to show if there are any statistical significant differences due the study independent variables (school type, qualification, and experience).

It showed that there were no statistical significant differences between the study sample (high school principals and high school teachers). In terms of their perception toward applying Seng’s learning organization, principles at Irbid public high schools in all five domains except building shared vision domain in favor of high school principals, and system thinking domain in favor of high school teachers.

Third: Findings related to the third question of the study: What are the suggestions of the principals and teachers of high public schools in Irbid district in order to apply Senge’s learning organization principles.

This question has been answered through the open question of the study instrument. The most repeated suggestions have been gathered and sequenced according to their importance that have occurred in the principals and teachers responds. They can be summed as:

1. Educate and raise the awareness of the principals and teachers about learning organization principles to view the possibilities of changing schools into learning ones regarding Senge’s principles.

2. Try to create suitable school environment and encourage team work in order to apply the concept of learning school.

3. Find a clear technique to apply the learning organization at Jordanian schools and set a clear plan to transfer the current schools into learning schools.

4. Develop the abilities and capacities of the current high schools in order to transfer them into learning organizations through practicing systems learning and possessing skills and techniques of learning school.
5. Conduct educational programs and workshops for principals and teachers in order to raise their awareness about learning organizations and learning schools.

6. Try to change the trends and perceptions of principals and teachers toward administrative practices and learning and teaching processes through electing strategies that transfer the current schools into schools that apply learning organization principles.

7. Raise the awareness of principals and teachers about the importance of making the desired changes and developing their abilities to cope up with the developments and the global revolution and execute school re-educational projects through finding learning organizations.

Study recommendation:

In light of the study results the researcher recommends the following:

1. Principals and teachers at the public high schools in Irbid should work together to raise their awareness in applying Senge’s learning organization.

2. Seminars and workshops should be conducted to educate school staff and the local community in the learning organization contest.

3. Encouraging high school principals to improve their communication system to educate teachers, students, and parents with the new learning organization phenomena.

References


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