

From Industry Practitioner to Educational Professional: Evaluating the Learning Institute as a Learning Organisation

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The purpose for this research was to evaluate the effectiveness of the Applied Technology Institute as a learning organization particularly in the area of formal/informal training of new staff, and to identify the effectiveness of the Institution in the context as a learning organization.

New Staff to the teaching profession at the Institute predominately originate from industry where they have usually been practitioners involved in engineering or other technical backgrounds. To be successful as lecturers, formal or informal training in teaching and learning is necessary, and this research was aimed at the Institute to establish how well it met the challenge as a learning organization when its normal function is to offer education and learning for students. From the survey and discussion groups the consensus was that the Institute did strive to be a learning organization and it was clear that staff were willing to learn and take up the challenges and move forward and indeed improve the notion as a learning organization for the institution. The future learning needs analysis identified with this research for improving learning opportunities has clearly shown that for an organization to truly become a learning organization, it must then have a conscious learning strategy and plan in place to allow for the continued effort of its staff to develop and continually learn.

Introduction

Workplace Learning

Research into learning at the workplace has brought about a great deal of learning perspectives and different points of view from various researchers. Rapid changes in technology and increased competition between national and international organisations has led to a renewed interest by organisations to re-evaluate the training and educational needs of the workforce.

There is a general agreement amongst stakeholders that workplace learning is becoming an important feature and that employees skills and vocational knowledge has to be improved through positive workplace training.

Workplace learning has been defined in several ways and Boud and Garrick (1999, p.2) said there should not be just one definition ... "many perspectives are needed not only because of the diversity of work and the differences which exist even within a single organisation but because learning in the workplace is so multi-faceted".

Workplace learning or On the Job learning as it is also known has attracted a great deal of interest and substantial research has taken place around learning opportunities in the workplace and the workplace is viewed as having a number of roles in

learning. Marsick (1987) gave a broad definition of workplace learning as:

“The way in which individuals or groups acquire, interpret, reorganise, change or assimilate a related cluster of information, skills and feeling. It is also primary to the way in which people construct meaning in their personal and shared organisational lives.” (Marsick 1987, p.4)

In later work, Marsick identified three primary categories as learning opportunities which are listed as formal, informal, and incidental.

The formal learning opportunities are normally provided in a structural way in a classroom-based activity suitable for learning, that involve a teacher and a group of learners usually known as a course, seminar or conference either in-house or at another venue located away from the workplace.

Informal learning is not deemed to be an ad hoc process; rather, there is an interrelationship between informal learning and work. The informal learning refers to the learning experiences that occur naturally as part of the work and learning can be incorporated within the work by, for example, by providing employees with a variety of tasks, or by arranging the work in a manner which maximises learning opportunities. Informal learning may include on the job learning, performance planning, coaching and self-study by reading journals and manuals, and potentially all structured activities that lead to learning. (Marsick and Watkins, 1990, 1999).

Incidental learning as defined by, Marsick and Watkins (1990) identified ‘incidental learning’ as a subset of informal learning where learning opportunities occur, have not been planned but occur spontaneously as a by-product of opportunities to work with new or challenging projects with expert professionals or with knowledgeable peers. Marsick and Watkins (1990) also suggest that incidental learning includes learning from mistakes, learning by doing, and learning through a series of interpersonal experiments.

Ross-Gordon and Dowling (1995, p. 315) provide their definition of incidental learning as “spontaneous action or transaction, the intention of which is task accomplishment, but which serendipitously increases particular knowledge, skills, or understanding. Incidental learning is unintentional and unexamined. It is not based on reflection; thus the learning is embedded in the learner’s actions”.

When incidental learning occurs, it is an unplanned activity and can be the product of some other activity and the learner discovers something while in the process of doing something else. To act upon and pursue that discovery, the learner must pull away from the primary or planned task and examine the discovery clearly before he/she can learn from it. Awareness of opportunities and the value of such learning may be brought to learners’ attention by emphasizing the outcomes they might anticipate through incidental learning Mealman (1993).

Other writers have challenged the earlier work of Marsick and Watkins of informal learning as being intentional and incidental learning as not, and Garrick (1999, pp 218-219) suggests that incidental is incorporated within the term informal, and ‘separating informal and incidental learning seems to represent a false dichotomy... existing definitions do not problematise the phenomena adequately’

Rylatt, (1994, p.10) describes workplace learning as: ‘A sustained and high leverage development of employees in line with organisational business out-

comes’.

The research undertaken over the past two decades have established that people learn in a variety of ways and individuals have their own known preferred styles of learning that lead to improved competence and performance. (Cervero, 1988, 1992; Houle, 1980).

As stated by Dryden and Vos (2001) “we learn visually, auditory, tactile/ kinaesthetically, through print –orientated material, or group interaction”.

Research into how people learn show that most job related proficiencies are learned outside the formal classroom, and suggest that where the learning occurs and how it’s used is closely associated to how adults learn. (Greenagel and Lagay 2003)

Concepts of the learning organisation

Much has been researched, written and discussed about the notion of learning organisations, and Senge (1990) was one of the early researchers to develop some key theories of a learning organisation. With his work *The Fifth Discipline*, Senge (1990) developed five disciplines that determined the architecture of a learning organisation and when used collectively facilitates organisational learning. With his work he encapsulated the essential integration process of the individual, the organisation and the work environment. He states that the five vital disciplines include personal mastery, mental models, building shared vision, team learning and systems thinking. These disciplines have evolved from the premise that an organisation should focus its attention on conditions that motivate people to do great things for themselves and their organisation.

The definition of a learning organisation given by Senge (1990) is that: “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 how to learn together”.

An earlier definition of a learning organisation stated by Beck (1989, p. 22) argued that “a learning organisation is one which facilitates learning and personal development of all its employees, whilst continually transforming itself”.

Watkins and Marsick (1992, p. 298) offered an alternative detailed definition of a learning organisation who argued that: “a learning organisation is one in which learning is a continuous, strategically used process, - integrated with, and running parallel to, work - that may yield changes in individual and collectively held perceptions, thinking, behaviours, attitudes, values, beliefs, mental models, systems, strategies, policies and procedures”.

Institutions as learning organisations

There is a substantial amount of literature on the subject of workplace learning and on the concept of organisations becoming learning organisations. However on the subject of universities and tertiary institutions there appears to be a limited amount of literature focussing specifically on lecturers as learners in their own workplaces and institutions as learning organisations. Also there appears to be very little in the way of studies for non academic personnel making the transition from one form of workplace as an industry oriented organisation to that of academic position as a

lecturer or a tutor in a tertiary organisation.

Arising out of the literature and research findings Patterson (1998) discussed the idea as to whether universities which are dedicated to learning are in fact learning organisations. Due to universities adopting strategies of alliance and pursuing new forms of partnerships and collaboration across tertiary sector boundaries, the question was raised as to whether maintaining a distinction between the university and non-university sectors are still appropriate. Patterson (1999) addresses the many questions that pertain to the concept of learning organisations. The term “learning organisation” has variously been defined and the important characteristics captured and Garvin (1993) list these as that the organisation learns through creating, acquiring, and transferring new ideas and knowledge, and changes its behaviour to reflect these.

Patterson argues that many universities have responded to the challenge of significant and rapid changes in the technological, economic, and social-cultural environment of the post industrial society, and they have applied new knowledge and changed the way of behaving and have indeed become learning organisations.

Previous work carried out by Ollin (1996) indicated that demands were being placed onto Further Education (FE) institutions and on academic staff to perform to high quality standards through rigorous quality assurance procedures, external inspections and self assessment and published information on performance.

These conditions forced onto them by external forces have necessitated the need by FE institutions to adopt the accoutrements of the business culture and have adapted a more “clearly defined purpose structure, structure and accountability than ever before” Ollin (1996 p.2).

Research carried out by Matthews (1999) investigates the real meaning of workplace learning, and goes on to suggest that for workplace learning to work in any situation, certain opportunities, conditions and features need to be in evidence.

Matthews (1999) suggests also that an examination of the concepts and the elements involved in workplace learning is necessary, as workplace learning is difficult to define and is considered to cover many different activities. Matthews (1999) argues that a workplace could be somewhere else other than located in a physical location and gives an example of academic staff within the university system carrying considerable amounts of work such as marking and preparation work at home.

Some of the barriers for universities to become a true learning organisation are found directly within the universities and White and Weathersby (2005) state that as lecturers they teach the students about learning organizations and conscientiously design courses to include elements of learning organizations, as the ideal for work organisations, including opportunities for innovation, self-managed work teams, experiential learning, double and triple-loop learning, and learning lessons about how things work discovered through “mistakes.” but “we work in institutions that rarely practice the even the simplest tenets found in the theories of learning organizations”.

Research carried out by Retna (2004) focuses on the increasing interest in the concept of the Learning Organisation. The research investigates the role of tutors in a university in New Zealand and discusses the idea of universities becoming learning organisations along the lines suggested by Peter Senge (1990). She argues

that tutors play a crucial role in this process, and that student learning is affected by the competency of tutors, and training in turn plays an important part in developing effective teaching.

Method

The approach used with this research was based on a combination of qualitative and quantitative process, with the main emphasis towards the qualitative methodology as this research was based on a case study on institutional organisational learning, and from the results it was hoped to be able to determine and describe the phenomenon of formal, informal and incidental learning compared to existing theoretical perceptions and writings on this topic as discussed in the literature review.

Attributes which occurred from the literature as characteristics of learning organisations were identified and compared with qualities of factors listed by various writers outlined in the literature review.

The survey questionnaire was based on prior research and knowledge of workplace learning, and the aim was to initially establish and gain information as to the available learning opportunities that new staff had participated in around the area of formal and informal training opportunities at the Applied Technology Institute organisation.

Following the survey questionnaire semi-structured interviews with focus group discussions were carried out to explore certain issues regarding the institute as a learning organization, and for new staff how effective the institution is for them as a learning organization. Responses to the questions were recorded manually and then the staff's perceptions and opinions recorded electronically.

Throughout the programmes that are offered over the ten main disciplines within the Applied Technology Institute (Electrotechnology, Automotive Engineering, Marine, Joinery, Carpentry, Interior Décor, Plumbing, Welding) an approx total of 60 staff are involved in teaching and learning. A sample of 22 staff who were either new or relatively new lecturers were selected to be part of the case study as this is recognized to be a common sample size of the population for a case study of this nature, according to Gay & Airasian, (2000).

Before any data was collected ethical approval was sought from the appropriate Research Ethics Committee and from there participants gave their permission on the consent form and all information given would be kept confidential and that in no way would identities be revealed in reports from the case study. All participants received an information sheet that explained the nature of the research with clear instructions on how to respond to the survey questionnaire.

The survey questionnaire used was of a descriptive design based on Gay & Airasian, (2000) idea that survey instruments contain four main elements to allow for the respondents to answer in a range of modes, thus not favouring any one particular mode. Findings from the surveys and interviews were examined using a combination of descriptive analysis.

Survey questionnaire

The survey questionnaire for the new staff consisted of 23 questions that covered 5 areas pertaining to learning organisation concepts and learning opportunities with-

in the organization.

Personal questions for staff were focused on questions such as:

Length of time worked as a lecturer at the Applied Technology Institute? Industry experience? Main reason for starting work as a lecturer? Positive or Negative aspects in the job?

Questions regarding learning on formal learning such as:

Learning strategies in place for new staff? Sufficient formal training in teaching prior to taking classes? (This included questions on the following methods, Learning technologies, People capabilities, Induction training, Professional training courses at UATI, Other academic course, GDHE courses) List of possible formal learning opportunities at the institute (includes: aware of courses, unaware of courses, actively participated, not had opportunity)

Questions regarding personal professional development plan such as:

Formal professional development plan with your supervisor? Satisfaction with professional development plan over the last year? Satisfaction with learning and developing professionally in your current position? Additional support in role as a lecturer?

Questions regarding learning on informal learning and incidental learning such as:

Identification of possible informal learning activities at Unitec. (list includes: Coaching by Team Leader, mentoring by Team Leader, mentoring by peers, performance planning, peer evaluation, student evaluation, self directed learning)

Identification of possible incidental learning activities at Unitec. (list includes: Observation of other lecturers' when teaching, Observation from students when teaching, Observation of other lecturers' when assessing, Observation of other lecturers undertaking research, Observation of best practice by others, Identifying best practice by other organisations, Joint lecturing activities, Peer tutoring, Working on projects, Problem solving with peers or supervisor, Reviewing problems or errors with peers/students)

Questions regarding level of support from peers and supervisor such as:

Working in a team situation? Main advantages/disadvantages when working in a team environment? Level of support from your team members in present job? Level of support from your manager in your present job? Level of support from the staff development unit in your present job?

Questions regarding the organisational structure such as:

Rate its organisational structure? Conscious learning strategy in place for new staff?

Questions regarding on the job learning and off the job learning such as:

(list includes: I have learnt more about my job by observing my peers, I have received advice from others, I have discussed quality issues with my team, I have positive work satisfaction, I have learnt more about my job through experiential learning, I have learnt more about my job through interaction with students).

Agree or disagree with the following: My off job learning is interesting, The professional training course tutors are effective, the training courses allow me to be innovative and try out new ideas, I develop valuable skills and knowledge from the formal training courses, My professional development training programme fits in well with my normal work, I have completed my education professional development plan in the expected time frame

The survey also invited further comments on improving the organisation.

Focus groups interview questions

Separate semi structured staff discussion sessions were carried out to explore certain issues regarding the institute as a learning organisation, and to determine how effective the Applied Institute was for them as new staff. Prior to the focus group discussions pre-circulated questions were distributed to the participants to indicate the nature of the topics to be included in the following discussions.

Questions for the focus groups included reasons and motivation for joining an institution and changing professions from an industry perspective to an educational one. Other questions centred on the transition from an industry oriented profession to an educational career and how could the institute help in the transition. Questions were asked about the understanding of organisational learning and further learning opportunities with regard to formal/informal and other types of learning and training. As well questions relating to the culture of the organisation and whether there were any perceived barriers in accessing formal or informal learning at the Applied Technology Institute.

Quality education is an important issue in any teaching organisation and in the focus groups staff were asked as to whether they felt that quality was featured in the organisation.

On job learning was an area that was addressed also and what it meant for the staff now as educators within an institution when formally on job learning was more familiar as an industry focused experience.

Results

Analyses and discussion

The main aim of this research project was centred across two viewpoints: one, to focus on new staff to the organisation and to gain an insight as to how effective from their perspective the Institute is in the area of formal/informal and incidental learning; and two, evaluate the effectiveness of the Applied Technology Institute as a learning organisation.

In order to meet this aim, four objectives were set and these will be considered in turn.

- Evaluate the effectiveness of the Applied Technology Institute as a learning organisation.

From the results gained from the questionnaire survey and focus groups the data sampling gathered from the participants indicated that the majority had

indeed originated from an industry background and were experienced at some form of technical occupation prior to joining the teaching profession. The experience that had been gained in an industry background had been valuable as in the main the staff were familiar with the concept of a learning organisation. When analysing the results as to the reasons for changing careers it was evident that one of the main reasons for doing so was because of the prospect of challenging work and secondly opportunities for further professional work was a factor with pay not featuring very high at all. Dealing with the question of the institute functioning as a learning organisation a high proportion of respondents felt that the organisation had a conscious learning strategy in place and tried hard to foster learning within the organisation. What was startling in the results in the domain of formal training for new staff was that a very high proportion of staff had either not been given the opportunity to carry out formal training for teaching skills or were unable to do so due to time constraints or other reasons. There was a mixed response on the structure of the organisation where the majority believed the structure to be semi-flexible and the minority deciding the structure to be either bureaucratic or too rigid. From the aspect given earlier by Ortenblad (2004) “a learning structure is a flexible organisation ... and is preferable to one that is bureaucratic ... the organisation needs continual learning to occur in order for it to remain flexible”.

As indicated in the focus groups it was highlighted that the organisation was conscious of a learning culture and was very positive in continuing with this strategy. However there were some very good suggestions made as to how the cultural awareness could be improved and reiterating some of these included focussing on the vision of the organisation and enabling effective methods and providing support to allow for staff to develop professionally. Allowing applied research to build on relationships between the organisation, staff and industry and providing adequate meeting time for staff to share their experiences and best practice.

The effectiveness of the Applied Institute as a learning organisation was discussed and the consensus from the focus groups and survey was that it was a learning organisation but still had lots of work to do to ensure that new and existing staff continues to learn and develop new knowledge. The respondents were confident that the organisation believed in its staff and did focus on quality and that the Institute places its students first and strives for continuous improvement in teaching and learning.

Teamwork in the organisation was shown to be very strong amongst the staff and the comments made were very positive and reinforced the learning organisation structure by: “sharing ideas, sharing knowledge and support, spreading the workload across the team, peer course development and assessment, synergy in research and development, speed to get tasks done, consistency, developing more solutions to problems, constructive discussion for more successful outcomes, team outcomes tend to be of better quality, easier working in a group situation, development of expertise in a particular area”.

- Determine the learning opportunities that may be available for new and existing staff.

Marsick and Watkins, (1990, 1999) indicated that for workplace learning to occur, three primary categories are required as learning opportunities which are listed as formal, informal, and incidental through informal learning, formal learning, and incidental learning.

This research project attempted to determine the extent of learning opportunities that was available for new and existing staff to the institution in each of the learning opportunities listed. The results of the questionnaire and focus groups revealed that formal learning in the institution was available and the majority of the staff were aware of the formal learning activities but only 25% had actually participated in these activities.

From the results taken regarding induction training only a small amount of staff had participated in this form of training showing a concern in the Induction training programme. It was clear that the induction process required some modification to ensure that all staff starting work in the organisation in the future experienced a positive start in their employment.

Also as gathered from the focus groups and survey questionnaire issues surrounding the management of performance development plans needs to be addressed to improve agreed outcomes.

Suggestions made by the staff for further formal learning activities included professional development coaching and professional individual growth programme and staff development training forums on department policy and procedures and operational systems.

The area of informal learning has shown that the staff have either not been aware or unfamiliar with some of the types of activities that can contribute to the idea of a learning organisation and creating new knowledge in the identified activities that may contribute to informal learning. The very positive section in this category was in the response for student feedback where the majority of staff had participated in student evaluation and had involvement in the area of self directed learning that leads towards learning.

Further ideas on informal training did arise from the results including providing enhanced staff collaboration to combine project and research work to share experiences and best practices.

Incidental learning identified by Marsick and Watkins, (1990, 1999) is a sub-set of informal learning where learning opportunities occur, the questionnaire survey provided results again in the low awareness or lack of opportunity to participate bracket, apart from observation from students and reviewing problems.

The responses relating to questions on on-job learning proved to be extremely positive regarding the on-job learning experiences as a lecturer in quality and interaction with the students.

Other issues concerning On-Job training related to attachment with specific leading industries to improve technical capabilities as a suggested strategy to aid in delivering up to date technical knowledge.

The off-job learning experiences for the staff that had been involved in some form of training or learning development programme gave a reasonably high satisfaction rate of 66% across all staff surveyed which was encouraging.

- Identify the areas of formal or informal needs analysis in order to make recommendations for improved training initiatives.

The areas of formal learning that have been identified with in this study that require further attention are:

- * induction training;
- * the management of performance development plans;
- * staff awareness of identified training programmes;
- * professional development coaching;
- * staff development training forums on department policy and procedures and operational systems;
- * technical training in the areas of new technologies;
- * Professional Development and in tandem facilitate research projects.

The areas of informal learning that have been identified with in this study that require further attention are:

- * staff awareness regarding identified informal and incidental learning activities with low participation levels;
 - * enhanced staff collaboration to combine project and research work;
 - * applied research opportunities;
 - * attachment with specific leading industries to improve technical capabilities.
- Identify what other research may be necessary for institutions/universities of Technology to adopt to embrace the notion as learning organisations.

This research project was limited in the sense that the full representation of the Applied Technology Institute as a learning organisation was not covered as this research project pertained only to new staff that had been employed for a relatively short period of time as educators. The main aim and focus was to gain an insight as to how effective from their perspective the Institute is as a learning organisation. This aim has been achieved with this project as there have been valuable results gained from this study. However perhaps a wider research project could be attempted to bring in longer serving staff and a wider cross section of the organisation with not only academics, but administration staff and management staff to gain an integrated research outcome of all staff engaged in the organisation in order to evaluate and view the full extent of the institute as a learning organisation.

Summary

This section has detailed the main results obtained from the data collection described previously. Results from the staff survey questionnaire and the focus groups were compiled and these results have been interpreted and analysed in terms of the

objectives for the project and have provided a basis for discussion.

Conclusion

This research project attempted to gain an insight as to how effective the Applied Technology Institute is as a learning organisation from the perspective of new academic staff, and to evaluate the possible learning opportunities that exist through the context of formal, informal and incidental learning.

Academic staff that are new to the teaching profession in the applied technologies field predominately originate from industry where they have usually been practitioners involved in engineering or some other technical background. To be successful as lecturers in their new profession, all new staff need some form of formal or informal training in teaching and learning, and this research was directed at the Institute to determine how it measured up to the challenge as a learning organisation when its normal function is to offer education and learning to its students.

The effectiveness of the Applied Technology Institute as a learning organisation in the training of new and current staff was an important question and analysing the results from this research, the findings have shown that the institute has many identified strengths when it comes to the notion as a learning organisation.

The consensus from the focus groups and survey was that the Applied Technology Institute at Unitec did strive to be a learning organisation following along the lines of Garvin (1993) who lists these as “the organisation learns through creating, acquiring, and transferring new ideas and knowledge, and changes its behaviour to reflect these”. However lots of work is still required to ensure that new and existing staff continue to learn and develop new knowledge for the Applied Technology Institute to aspire to becoming a learning organisation in the true sense bringing together all four aspects of a learning organisation such as one based on an integrated model developed by Ortenblad (2004).

This research followed along the lines of prominent researchers in the field of learning organisations and a key focus was on the differing perspectives in the area of formal and informal learning opportunities that the new staff experienced.

Some very good initiatives and suggestions have resulted from the outcomes and these suggestions for improvement will be recommended to enhance the formal and informal learning activities in the institute.

Critical factors identified in learning needs for new staff from an industry background in the transition from engineers to educators included the institute developing effective induction and professional development plans and providing adequate support mechanisms that encouraged new and existing staff to develop teamwork and sharing of knowledge with each other.

The future learning needs analysis that has been identified for improving learning opportunities has clearly shown that for an organisation to become a learning organisation the organisation must have a conscious learning strategy and plan in place to allow for the continued effort of its staff to develop and continually learn whether it be through a formal plan or through on the job learning. An organisation such as an applied technology institution has clearly a role to play as a learning organisation now and in the future.

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