Chapter 4

1. Introduction

This chapter gives the essence of the 598 pages of information gathered from the 58 respondents from 36 institutions via questionnaires as mentioned in Chapter 2.

The questions dealt with four main issues:

- ✓ Localization
- ✓ History
- ✓ Present
- ✓ Future

The feedback is given under the same headings.

2. Localization

The aim of these questions was to obtain information to indicate context and possible factors that may indicate special circumstances. Respondents were asked to comment on institutional factors, departmental factors and personal factors. (Figure 2.1)

2.1 Departmental names

Departments carry a variety of names, but the names have little value as indicators of exactly what happens in the department. Departments with similar names operate in less similar ways than other departments which carry different names.

The five most common departmental names are in descending order of similarity:

- ✓ Centre For Teaching And Learning Services
- ✓ Centre For Academic Excellence
- ✓ Centre For Teaching Excellence
- ✓ Centre For Excellence In Learning And Teaching
- ✓ Teaching and Learning Development Unit

Departmental names may be useful when doing searches within the field. All names of identified departments were compared and analysed. A compilation of similarities between names revealed the information compiled in Table 4.1. It has three columns which contain words in alphabetical order. The first column holds the collective nouns, the middle column has the aspects and the right hand column indicates intent. This table makes it possible to generate any of the departmental names represented by the respondents.

To identify a possible departmental name, select any one word each from the columns. By combining these selected words appropriately, applicable names are generated. As an example the top three words can be used. This would suggest the name *Centre* (for) *Academic Development.* A second word from the centre column could be used selectively. An example of such a title could be *Unit for teaching and learning support.*

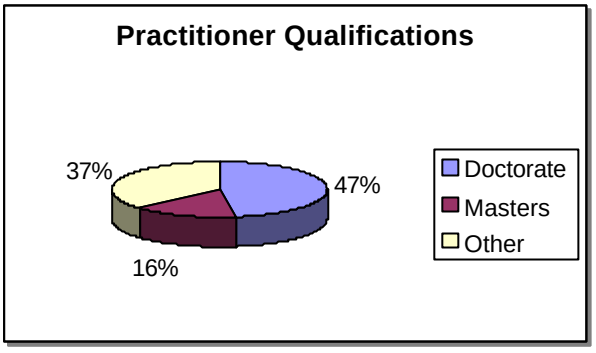
Collective noun	Aspect	Intent
Centre	Academic	Development
Department	Faculty	Excellence
Division	Instructional	Services
Office	Learning	Support
Unit	Organizational	
	Research	
	Staff	
	Teaching	
	Technology	

Table 4.1: Department name generator

2.2. Personal factors

The qualifications of the respondents are indicated not to refer to or imply competence or lack thereof. Within academia however, qualifications do impact on peer acceptance.

The respondents vary in terms of qualification. Table 4.2 contains a summary of these qualifications as well as percentage figures indicating the distribution of those qualifications.



Doctorate	47%
Masters	16%
Other	37%

Table 4.2: Qualifications of practitioners

The graphical representation of this distribution can be seen in Table 4.2. Fifty-three percent of these respondents hold academic appointments.

3. History

This section is included in the questionnaire to probe both positive and negative experiences related to staff development. Both extremes are catered for in the following two questions:

- ✓ Identify your all time staff developmental highlight; and
- ✓ Tried but aborted approaches to staff development.

3.1. All time staff developmental highlight

Analysis of the data showed that respondents reported highlights from four perspectives: institutional, departmental , individual benefit and personal value. Each perspective is analysed separately.

3.1.1 Institutional focus

The comments made to indicate a highlight from an institutional perspective could be sorted according to the nature of the impact of the successful intervention. Table 4.3 shows key phrases in the left hand column. The right hand column holds a corresponding anecdote as further clarification. The entries are in alphabetical order.

Highlight	Anecdote
Action research	"…the [action research] initiative is having a major impact on teaching and learning here, and what we've learned is influencing all our faculty instructional programmes. So, look what can happen if you support a small vanguard of faculty pursuing something they're passionate about." (Driscoll, 2001)
Awareness efforts	"…1,500 students responded and identified over 400 faculty (who had been significant in their academic development). We wrote each and every faculty identified a personal letter congratulating them and specifying some of the reasons their students gave in identifying them. The response to these letters has been overwhelmingly positive." (Sandin, 2001)
Expanded efforts	"We were pretty much a "grass roots" department, with a very small budget. We rarely took on big projects. One that has probably made the most impact is having faculty trained to do SGIDs (Small Group Instructional Diagnostics) as a way to self-reflect, with a coach, on teaching. It seems to have impacted lots of folks on campus." (Lewis, 2001)
Large scale involvement	"The highlight is that we have had 71% of our 450 faculty participate in the training activities we conduct." (Marcinkiewicz, 2001)

Table 4.3: Institutional focused successes

One comment in particular, reported an intervention which started as an individual consultation, but eventually impacted on the whole department.

> " *When I look back at all of the people with whom I have worked, perhaps the best is one who came to my office the first day he started on this campus. He has evolved as a teacher, gained tenure, been appointed dept. head, and has never lost touch. Now he brings his new faculty members to me right from their first days on campus*." (Rutherford , 2001)

3.1.2 Unit focus

A second sub-set of highlights are those which deal with specific units and their particular successes. This compilation is given in Table 4.4.

Highlight	Anecdote
Birth of unit	"… a committee to study faculty development and rewards, recommended that a separate full time entity be established on our campus to concentrate the faculty development efforts." (Scudder, 2001)
Conference held	"a campus-wide conference held in 1999 related to outcomes assessment. It was a hot topic on campus, with an accreditation visit soon on hand, but we were lucky to identify it early, get grant money, and have it in full swing a month before the accreditation team arrived." (Welk, 2001)
Curriculum development	"The largest success has been the development and implementation of an innovative, case-based professional curriculum. This required extensive cooperation and collaboration of many faculty, with ongoing conversations." (Edmondson,2001)
Own model extend to whole university	"I was charged with leading an Investigation 10 years hence, CTE is a Major success and a fully integrated part of the infrastructure of the University. I feel it is a personal legacy I will leave to the university, as Founding director." (Greenberg, 2001)
Production of a publication	"it allowed me to reach many people who did not have the time or inclination to attend workshops or ask for individual consultations." (Nathanson, 2001)

Table 4.4: Unit-focused successes

3.1.3 Individual benefit

Another form of success reported is where faculty members drew individual value from interventions. These were not during one-on-one sessions, but the result was

nevertheless personal enrichment and development for the participants. Table 4.5 indicates highlights of this kind.

Highlight	Anecdote
Future faculty	"(Regular)… graduate-level courses for … postdoctoral fellows that explore teaching and learning in higher education and introduce the diversity of faculty roles as well as logistics of the academic job search. In a culture that believes all you need is to know the content in order to teach it, this is phenomenal." (Smith, 2001)
Master teachers workshops	"we take approximately 40 faculty (full- and part-time) to a retreat setting for three days and two nights." (Burnstad, 2001)
Mid-career programme	"… faculty ages 40-something to about 70 from 10 different disciplines : We met for 2 hours every other week - bonding took place on the first day. People loved talking. We did a pre and post survey that showed an absolutely astounding change in confidence." (Tzenis, 2001)
New faculty orientation	"…we get together first-time lecturers…, they write out questions and concerns, and we solve all their problems (well, almost). My favourite quote on an evaluation: 'I never knew I needed so much help!'" (Cheatwood, 2001)
Observation and reflection	" A semester long program in which 8 faculty observed one of our professors who teaches using a cooperative learning model, technology, and problem-based curriculum." (Driscoll, 2001)
Reflective retreats	"...the 30-hour retreat I take 15 faculty on at the end of each year. We read a book ahead of time and have time for silence, writing, and talking." (Frerichs, 2001)
Several especially successful seminars and workshops	"Eight faculty would attend for three days and would practice giving short parts of their lectures, being videotaped, learning about presentation skills, and critiquing each other. About 150 faculty participated in this program over a four year period." (Tollefson, 2001)
Follow up	"...I observed a faculty member in Fall 1999 and again almost exactly one year later…---same course. Many … suggestions …had been adopted and were in use in 2000. A key observation went from only about 25% of the students having eye contact on the screen while an explanation was made to about 75% making such eye contact in 2000." (Uphoff, 2001)
Grant received	"We supported a faculty member with a seed research grant and he ended up receiving federal funding for almost $5m." (Ogunyemi, 2001)

Table 4.5: Individual successes

3.1.4 Personal value

Lastly, some respondents reported all time highlights that rated themselves as beneficiaries. Two such examples appear in Table 4.6.

Highlight	Anecdote
Eventually observing process results	"not only a slow process but often a 'hidden' process in which results are not evident for some time." (Gandolfo, 2001)
Personal recognition	"Have you seen the movie Dead Poet's Society? There is a scene where the class stands on their Chairs and says 'Captain My Captain' to the teacher. After a two-week leadership program, this group of 25 accountants closed the class that way for me. It was a career highlight!" (Jones, 2001)

Table 4.6: Personal value

This section asked for interventions identified as all time career highlights. While context, budget and various other factors will co-determine success, it does indicate possibility and could be considered for inclusion in programmes.

3.2. Tried but aborted approaches

Similarly, the fact that respondents decided no longer to pursue certain developmental avenues does not guarantee failure for those who do try. However, caution is advised when these identified approaches are considered.

The next five sub-sections each holds elements clustered under the following headings which hint to reasons for failure:

- ✓ Not best practice approaches
- ✓ Management related problems
- ✓ Lack of interest/commitment
- ✓ Lack of understanding
- ✓ Time constraints

3.2.1 Not best practice approaches

Table 4.7 indicates some of these aborted practices. The left hand column (in bold) is an indication of the type of activity /no longer pursued. As in the sections dealing with highlights, the next column has examples in the form of anecdotes from respondents. The additional third column on the right, comments on the particular shortcoming.

Aborted practice	**Anecdote**	**Shortcoming**
Electronic journaling on the web.	"Group activities violated by outsiders who hacked the site and disrupted process." (Chaika, 2001)	Privacy and access are always a concern when using technology.
In depth tenure preparation.	"Our 'New Faculty Seminar' was originally aimed at helping new tenure-track faculty get their teaching started. Over the three years we've run the program, we've learned that, among other things, new faculty generally don't have the experience base or the time to think deeply about their teaching." (Wellman, 2001)	Pitching too high (Wellman, 2001) Lack of commitment (Uphoff, 2001)
Mandatory appraisal/development	"I was forced to run 30 mandatory 1-day sessions for 500 academic staff who were being forced to participate in a staff development and appraisal interview that included grading them a - d on their performance (without criteria for determining the grade). They were absolutely furious." (Carroll, 2001)	Bad practice/ insensitive procedure
Purely product focus	"A purely product approach to change does not work. It forgets the individual learning, cultural, value styles of the learners as well as the teachers." (Willey, 2001)	Oversimplification – neglecting people and process.

Table 4.7: Approaches aborted because they were not considered best practice

3.2.2 Management related

The second set of tried, but aborted approaches to staff development relates to decisions made by- or support received from- management. Table 4.8 is structured like Table 4.7 above.

Aborted practice	Anecdote	Shortcoming
Blindly copy success of others	"I learned about designing and leading faculty development efforts at a research institution and now serve comprehensive universities. Faculty in comprehensive universities expect …(different)… interventions. I have had to adjust my thinking and expectations to accommodate that." (Miller, 2001)	Understanding of local expectations.
Funding initiatives	"I've tried to secure internal funding for development initiatives and particularly at my present institution have not been supported." (Anon, 2001)	Lip service by management
Downsizing	"I can't recall any that have failed because of their nature. We have, however, discontinued programs when our funding has been reduced." (Tollefson, 2001)	Budget constraints
Join national discussion	"Many faculties around the US are ready to discuss the scholarship of teaching and learning, but our faculty are not yet able to consider it. We are a research university that puts great emphasis on research and only some on teaching. For our faculty to consider themselves scholars of teaching and learning mean that they must become top-flight researchers in a new area. Our efforts to join in the national discussion are at a standstill." (Smith, 2001)	Great emphasis on research
Staff Development Review	"Academic Staff Development Review as a mechanism for gathering and aggregating institutional training needs did not produce the amount of information that we could use effectively to plan a strategic approach to the provision of staff development. A lack of appreciation of its potential value and of local diligence saw (this) as somewhat bland data gathered." (Hicks, 2001)	Quantitative judgement on qualitative interventions

Table 4.8: Approaches aborted because of management issues.

3.2.3 Lack of interest/commitment

This is the largest contributor with nine entries. Table 4.9 again follows the convention of activity in bold on the left hand side, comment lower left and anecdote in the right hand column.

Aborted practice	Anecdote	Shortcoming
One off workshops	"Staff have attended developmental workshops and it has made no impact on their thinking and their teaching. This may in part (be) due to the limitations of one off generic workshops." (Spiller, 2001)	Lack of impact
Peer Support Programme	"Peer Support Program for faculty to give mutual, reciprocal feedback. Did fine for first few times, but did not attract enough interest to be repeatable every year ." (Allen,2001)	Not enough interest
Top-down approach	"Any top-down approach will have difficulty succeeding if it isn't perceived to be a valuable solution to a problem the staff is facing." (Edmondson, 2001)	There must be a perceived need." (Tomczyk, 2001)
Working via Chair persons	"I put out signals and met with Chairs. That was not the way to go on our campus.... "targeting" individual departments that didn't see the need and initiate the contact. We have now realized this about our culture." (Desrochers, 2001)	No perceived need

.../

Aborted practice	Anecdote	Shortcoming
Session on teaching with technology	'I invited [staff] to discuss the influence and role of technology in teaching. It failed because the group was not interested in listening to, engaging, or learning." (Huffaker,2001)	Group not ready for topic
A journal club	"I tried to start a journal club, with an article on reserve in the library which faculty could duplicate and read in preparation. A general article that would cut across disciplines. It was well advertised but only 2-3 people came to each, so I didn't continue it the second year. Faculty tend to come to more practical things like grading programs." (Welk , 2001)	Low uptake
List Serve discussion	"I tried a to encourage discussion, but few people signed up, and no one ever sent in anything." (Nathanson,2001)	Lack of participation
Self-sustaining interest groups.	"We have not been successful in setting up self-sustaining interest groups. If our staff do not schedule the meetings, remind everyone, and even set agendas and arrange programs, groups fizzle out in less than a year." (MacRae,2001)	Lacking ownership
Voluntary discussions	We tried to implement a "*Let's Talk Teaching*" program which was to be an open, drop in time for faculty to gather to discuss teaching and learning issues. It simply never caught on. Our faculty perceive themselves to be too busy to take the time to do something like that. The culture just never developed." (Burnstad,2001)	Perceptions and priorities

Table 4.9: Approaches aborted because of lack of interest.

3.2.4 Lack of understanding

The lack of interest and commitment mentioned in table 4.9 above may well be strongly linked to Tables 4.10 and 4.11 below. Table 4.10 shows approaches aborted because recipients did not share the perspectives and insights of the change agents.

Aborted practice	Anecdote	Shortcoming
General failure	"When I failed, it was when faculty had arcane perspectives of teaching and learning but didn't see that they had any problems at all with teaching. Even with bad evaluations, those faculty often would not see their own contributions to students' problems." (Reed, 2001)	Lack of insight
Independent projects	"We offer small grants (up to $750) but proposals remain pretty pedestrian (for supplies or travel) and don't do much pedagogical." (O'Connor, 2001)	Lack of vision
Online learning design	"Inviting faculty to join us in the design of an adaptive learning environment—online. They fail to do it because it is too hard—not technologically, but conceptually. Most faculty don't really know where students stumble. When they do, they don't know how to address it. The evidence we encounter suggests the first step is to get faculty to listen for and to respect student's unique purposes for learning." (Brown, 2001)	Conceptual complexity

Table 4.10: Approaches aborted because of lack of insight.

3.2.5 Time constraints

Table 4.11 holds the approaches aborted because recipients did not have sufficient time. As suggested earlier, It may well be a contributory factor to the lack of commitment mentioned in Table 4.9.

Aborted practice	Anecdote	Shortcoming
Critical reflection groups for faculty	"…which meet about once a month have been well received, but tend to go nowhere without strong leadership…. I think it failed because so many of our faculty are simply too busy to spend time unless they perceive in advance a really practical use of their time." (Cheatwood, 2001)	Full schedules
Shared faculty members	"It doesn't work for us to hire faculty away from their departments to work for us quarter time. Their time is too fragmented that way, and their department gets first crack at whatever time they have." (Svinicki,2001)	Not enough time
State-wide conference	"A state-wide faculty development conference. It was aborted because it became too difficult to get a date that was agreeable to all institutions." (Grubler, 2001)	Full schedules
Teaching circles	"We asked people to identify certain interests. We would then put them into groups that would meet throughout the semester to discuss that interest. E.g. Problem-based Learning, Classroom Action Research. Problem--never could find common meeting times for groups." (Mettetal, 2001)	Full schedules

Table 4.11: Approaches aborted because of lack of time.

The limitation of time is repeated often. Combine this with the fact that the greater majority of activities are voluntary and Uphoff's comment seems fair.

> *"Generally, we are successful, but involvement rarely goes beyond about 20-30% of the total faculty numbers*." *(Uphoff, 2001)*

The tables above show methods currently aborted by some respondents for the reasons as indicated. Section 4 shows the approaches which are still actively pursued.

4. Present

This section deals with the responses regarding the present staff development activities of the respondents.

> *"…that is the purpose of education, to liberate the mind and soul to explore possibilities*." *(Willey, 2001)*

Respondents were asked to comment under the following headings (Figure 2.1):

- ✓ Current approach to staff development.
- ✓ Technological involvement
- ✓ Satisfaction level
- ✓ Constraints
- ✓ Biggest advantage

4.1 Current approach to staff development

A fair amount of similarity exists between core activities at different institutions.

> *"We pretty much use the standard model that is present in most US universities, workshops, conferences, consulting, newsletters, etc.*" *(Svinicki,2001)*

A central office to co-ordinate developmental activities is also common.

"Almost all universities in Australia have a central unit with responsibility for the development of academic staff." ***(Hicks, 2001)***

Workshops and seminars are the most popular. Both these are used by 98% of the feedback institutions. Participation is largely voluntary with a 93% indication for a need to obtain buy-in from potential participants. Client focus is predominant as 87% indicate that the content of the interventions is focused on the needs of participants. Self-evaluation and reflection on practice is practised by 82%.

Feedback received was analysed and the cumulative activity list is shown in Table 4.12 that holds a prioritised list of current staff development activities. The activities are listed in descending order.

Developmental activity	**Frequency**
Seminars/Speakers	98%
Workshops	98%
Extensive/ Eclectic approach	87%
Professional development	85%
Continuous evaluation	82%
Mentoring	76%
Involved during induction	74%
Discussion groups	70%
Consultation	64%
Involved during career (continuous)	64%
Use of champions	58%
Publication	52%
Peer involvement	52%
Career development (ad hoc)	47%
Focus on learner experience	45%
Book clubs	35%
Awards and recognition	29%
Talk breakfast/lunch	12%
Grant programmes	12%
Incentives/Mugs/Certificates/Cash	12%
Performance appraisal	10%
Involved during hiring	10%
Preparation for retirement	6%
Organizational development	6%
Succession planning	4%

Table 4.12: Prioritised list of current staff development activities.

As can be seen above, 87% of the respondents follow a comprehensive approach to development. Nobody indicated that they exclusively follow a particular model in their activities.

> *"My current approaches to faculty development is one of diverse approaches - intentionally diverse to meet the needs of diverse faculty with different learning styles, needs, interests just like students*." *(Driscoll, 2001*)

This is echoed by Edmondson:

> *"We use a variety of approaches that build upon educational principles and theory rather than developmental theory. We see staff more as students than as cogs in an organization*."
> *(Edmondson, 2001)*

A number of elements and fundamental educational approaches were identified which are encouraged and combined into the eclectic approaches. These common recommendations and the people credited as intellectual property right holders are listed in Table 4.13 below.

In some instances such as the cooperative learning techniques, different people were suggested. This should not be viewed as contradictory accreditations, but rather as different approaches to what in essence deals with the same concepts. Again, the table lists suggestions in descending order of popularity. No percentages are given, because of insufficient responses in this regard.

Recommendations	**Authors**
Learning styles	David Kolb, Bernice McCarthy and Caine and Caine
Personality type inventory	Myers Briggs
Educational approach	Paolo Freire
Theory of Multiple Intelligences	Gardner
Cooperative learning techniques	Johnson, Smith, Kagan and Prescott
Facilitation techniques	Satire and Yalom
Learner development	Piaget, Erickson, Freud, Bandura, Skinner
Staff Development	Everett Rogers

Table 4.13: Popular development activities.

"Faculty members have to come to believe that there actually is knowledge about how to teach and thus that teaching can be improved."
(Nathanson, 2001)

The following people were identified as prominent contributors, but the specific field of their influence was not given. They are listed in alphabetical order. The URL's behind their names should inform on further investigation.

- ✓ Chuck Bonwell *http://www.active-learning-site.com/*
- ✓ James O. Hammons (University of Arkansas)
- ✓ John Biggs *http://www.styluspub.com/books/book4172.html*
- ✓ Mel Silberman *http://www.temple.edu/education/faculty/Silberman.htm*
- ✓ Parker Palmer *http://www.miracosta.cc.ca.us/home/gfloren/palmer.htm*
- ✓ Patricia Cross *http://www.occe.ou.edu/halloffame/cross.html*
- ✓ Robert Kegan *http://hugse7.harvard.edu/gsedata/resource_pkg.profile?vperson_id=318*
- ✓ Stephen Brookfield *http://nlu.nl.edu/ace/Resources/Brookfield.html*
- ✓ Tom Angelo *http://www.usyd.edu.au/su/ctl/Synergy/Synergy8/tangelo.htm*

4.2 Technological involvement

Change agents generally seem to have a very sober outlook on the use of technology.

"I have been involved all my career with the use of technology for teaching and learning. I have seen all the fads and heard all the hyperbole. My basic premise is that the choice of technologies for learning must be based on the needs of the situation and that the greatest mistake is to choose a Technology first and then try to make everything (learners included) fit Into that technological box." (Anon, 2001)

"I use it as it applies to the situation. There are times when I use a good old chalkboard or newsprint and scented markers. Technology is not a god to me - it is a tool." (Macario, 2001)

Similarly, technological innovations and applications in themselves are not seen as crucial elements in higher education development today.

> *"These things, since they involve communication, can be done or enhanced by technology, but none of them* ***requires*** *technology*." (Nathanson, 2001)

> *"Technology is just another tool for a teacher to use. I do not see it as superior to any other technique. There are techniques and approaches that "fit" the content, the learners and the situation. The skill of an exceptional teacher is to know her/his students and content so well they can choose the techniques/strategies that will communicate, demonstrate and elucidate the material for the students/learners." (Macario, 2001)*

Many respondents are not primarily focused on changing the situation.

> *"We have access to computers, etc. Of course but this is not our primary area of development*." *(*Welk, 2001*)*

This does not imply that the value of current systems, techniques and affordances are not appreciated or that no effort is invested in creating opportunities for faculty members to become familiar with new approaches. A great deal of enthusiasm was evident.

> *"It can reach so many people at once*." *(Reed, 2001)*

> *Our goal is to ensure that all staff members have an opportunity to remain current with the Technology in their field*." *(*Burnstad*,* 2001*)*

Some centres are involved in making technological possibilities accessible to faculty members.

> *"We constantly have training available to staff and faculty for workshops on new software applications*." (Tomczyk, 2001)
>
> …and
>
> *"If it is technology, then we learn it and use it. Many of our efforts in the last 5 years have been about technological enhancement*." *(*Ogunyemi, 2001*)*

Some of these departments run huge sections devoted to electronic teaching. WebCT and Blackboard are the only two commercial platforms suggested.

> *"We have a large section of our office devoted to technology for teaching we are also the largest users of WebCT*." (Smith, 2001)

Other respondents treat this as the responsibility of a separate unit, but see their own duty as that of enabling faculty members to use technology for educational purposes.

> "*Computer services gives basic training, then we help faculty apply to teaching*." (Mettetal, 2001)

> *"The university has a lab for faculty and staff and a professional staff of about 4 whose main job is to provide training in technology. They hold workshops and provide one-on-one and cohort training programs. Also, our Distance ed office trains people to use our on-line course management system*." (MacRae, 2001)

A few departments are involved in the whole spectrum of training and address the educational and technological aspects as part of their development activities.

> *"The goal of linking technology and pedagogy. We've developed a great receptivity to pedagogy among those faculty excited by technology, and our staff capacity is beginning to catch up to the emerging demand. This is a major area of development for us*." *(*Wellman, 2001)

Those who do venture into the realm of technology as a tool, do not all share the same perspective.

> *"There is considerable tension between the centers about the role of teaching and learning ideas in relation to technology. Similar vocabulary is used to describe very different ideas and assumptions*." *(Smith, 2001)*

Some practitioners use the enthusiasm for technology and changes in delivery to provide opportunities to raise educational awareness.

> *"They (faculty) are encouraged to work with colleagues and work to develop a coherent Curriculum. Faculty who persist prevail and are quite pleased. Usually they opt for the delivery options--technology--that we provide. But even that, by design, pushes faculty toward more progressive pedagogies, or pedagogies that encourage faculty/student interaction*." *(*Brown, 2001*)*

At this stage people tend to use technology for developmental purposes only from the perspective of generating access,

> *"Our CTL web site includes a section on faculty development with some resources available. (www.wright.edu/ctl/) this is an element I plan to expand. We now have our own digital camera and we will be putting more news of faculty development onto our web*." (Uphoff, 2001)

Those few who use technology for other aspects of their own developmental activities, besides training are by far in the minority and they seem to prefer an eclectic approach.

> *"I believe e-learning is going to become more of a viable force in all kinds of education. Blended solutions are the most efficacious for learning, in my opinion* ." *(*Reed, 2001*)*
> *"It is *not* a specific event or approach that leads to the effective use, but a continuing, comprehensive program that focuses on teaching/learning, takes into account the campus culture, reward system, and the technological sophistication of faculty*." (Frayer, 2001)
>
> …and
>
> *"Technology is currently playing a big role, not only in the content of our training but also in the format. We are increasingly using our website as a portal rather than a static page. I would like to have streaming video orientations up and running soon, but this would require more bandwidth than we currently have available*." (Miller, 2001)

Unfortunately there are those who have attempted to utilise technology, but who have been discouraged through bad experiences.

> *"Originally we tried to offer workshops on using technology in teaching, but they never went very well. The audience would vary from 'never touched a computer' to people who 'design their own everything' no matter what we said in the advertising*." (Tzenis, 2001)

The main use of technology for staff development purposes is to disseminate information or to provide access to information and resources available on line.

> *"We use a web page as our cornerstone*." (Lewis, 2001)
>
> "*We create and disseminate resource materials*." (Greenberg, 2001)

Figures 4.2 and 4.3 below show screen captures of some of these information portals. Notice that Figure 4.2 provides access to external links only, while Figure 4.3 holds an example with some value added resources.

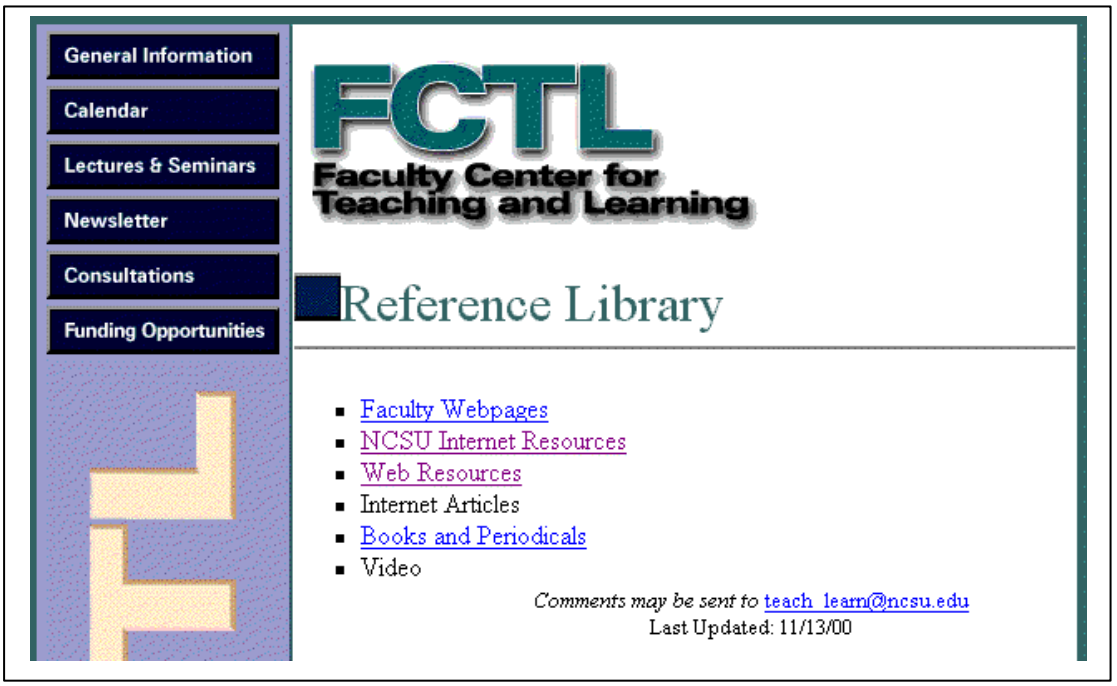


Figure 4.1: Example of a link page with mostly external information.

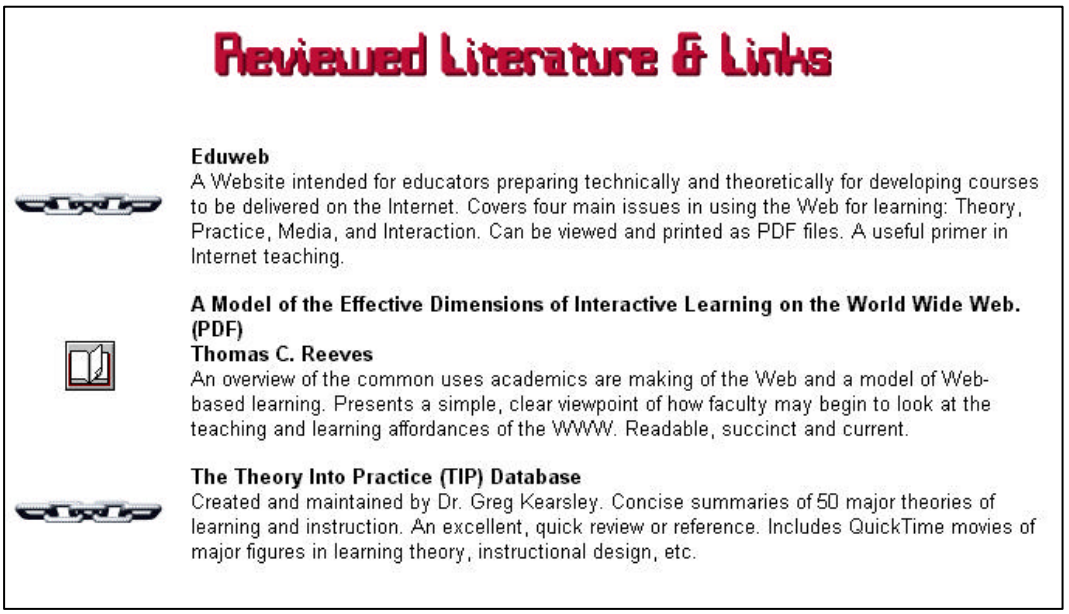


Figure 4.2: Example of a link page with value added resources.

Figure 4.3 shows only one screen with information to act as example. By scrolling down, many similar links are also available.

The alphabetical list below holds a dozen web resources pages which were readily available during July 2001.The information provided in these pages could be good examples of useful resources.

http://cybercentral.berkeley.edu/index.html
http://www.csd.uwa.edu.au/TEACHLEARN.HTML
http://www.csubak.edu/~tlc/
http://www.dean.usma.edu/cte/ctews4.htm
http://www.inform.umd.edu/EdRes/FacRes/CTE/library/res/index.html
http://www.isd.uga.edu
http://www.ncsu.edu/fctl/introd.html
http://www.ualberta.ca/~uts/
http://www.unl.edu/teaching/Teachtips.html
http://www.utc.arizona.edu/
http://www.utexas.edu/academic/cte/
http://www.wright.edu/ctl/faculty/resources/index.html

Table 4.14 shows the main stages in adoption. The left hand column gives Von Hippel *et al*.'s (1988) classification, Moore's (1995) continuum in the middle and quotes from respondents indicating that they may currently belong to that particular grouping on the right. From the table it becomes evident that normal distribution of technology adoption is also evident amongst change agents.

Lead user method Von Hippel *et al*.	**Technology adoption life cycle** Moore	**Respondent indicators**
Lead users	Innovators	*" We have a resident professor in technology who organizes workshops and panel discussions, and who serves as consultant for faculty interested in developing the technological aspect of their teaching-learning practice*." (Sandin, 2001)
	Early adopters	*"We make considerable use of the web in publicity of workshops and also to present a range of on-line material*." (Hicks, 2001)
Chasm		
Routine users	Early majority	*"We have achieved 45% of faculty using an online course manager for complementing their courses*." *(*Marcinkiewicz, 2001*)*
	Late majority	*"We don't have it yet, but we're about to merge with the office on campus that does have it*." (Svinicki, 2001)
	Laggards	"*I have resisted teaching online because I believe so strongly in classroom interaction*." (Cheatwood, 2001)

Table 4.14: Various levels of technological adoption exist.

4.3 Satisfaction level

Respondents were asked to comment on impact, feedback and their own perspective. While ten percent of respondents did not supply information regarding their level of satisfaction, all those who did, measured the satisfaction level of their activities in one-way or another. Figure 4.4 shows this distribution in terms of the method primarily used.

> *"We are ranked as one of the most important campus offices in assisting the university with its educational mission, despite our small size. Outside review rated us highly. Faculty satisfaction with our programs is high as well*." (O'Connor, 2001)

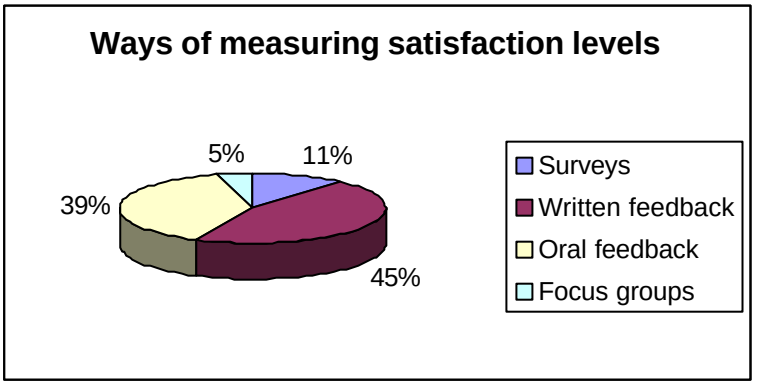


Figure 4.3: Main sources of feedback in order to measure satisfaction levels.

Feedback obtained from the questionnaire suggests that employees are satisfied with current development practice (79%), while 11% of the centres conceded that not everybody was satisfied.

> *"Many faculty members are not convinced that this is a product that they need. If they were convinced, the task would be very different*." (Smith, 2001)

Of the respondents, 16% reported high levels of satisfaction but also indicated that they themselves were not yet satisfied with the practice and would still need to make improvements.

> *"I see myself both as a teacher and a learner. I see my "learners" the same way. My most powerful teachers have been my students*." (Macario, 2001)

Some 39% reported that they feel completely accepted and appreciated. It also emerged that the development process and the building of a credible department were not achieved quickly.

> *"I am starting to see my centre's name everywhere. It's the place to be… Took 5 years!*" (Desrochers, 2001)

On a personal level there were many who abstained from comments, but two of the extreme answers received are cited below:

> *"Frankly, I am disenchanted with the development field because my experience has been that a position in a "teaching center" often puts one in the position of being a service provider and thus being treated as a servant. I am tired of being told by people with absolutely no training in teaching and learning that because they are disciplinary specialists, only they have anything of value to say about teaching in their discipline*." (Anon, 2001)

> *"My own satisfaction is quite high - I love my work - it is so stimulating and satisfying*." (Driscoll, 2001)

When the comments of the respondents were analysed, certain commonalities were identified. These classifications and their frequency are reflected in Table 4.15.

Frustration	13%
Over worked	11%
Highly motivated	34%

Table 4.15: Personal experiences of change agents

4.4 Constraints

The nature of feedback received from the respondents lends itself to more quantitative analysis, as respondents were asked to identify and prioritise those factors which they perceived as constraints on their activities. Answers received could then be classed under generic headings and compared in terms of three mathematical methods namely frequency, average and median.

Firstly the frequency of mention was measured by calculating the average of the number of times that a particular item was mentioned in comparison to the total number of responses received. However, averages cannot be used as sole determinator of importance as this does not take the ranking of that particular factor into consideration. The problem can be overcome by using median and mode in conjunction this.

Median will indicate the middle of a data set. Mode is an indication of the most frequent or repetitive value returned for a particular item. For instance in Table 4.6, an item with a mode one would indicate that that particular option was primarily identified as prime constraint, but a mode three would show a tendency to mention this factor only as a third level priority.

No single one of these three factors alone gives a true picture, but when used in conjunction tendencies may show up. For example: if information should imply the selection of about half of the respondents preferring a low value and the other half of the respondents divided between two other higher values, then both AVERAGE and MEDIAN may show a value close to the middle, but MODE may show the dominant lower preference.

In Table 4.16 below the top ten constraints as identified are listed in descending order. For ranking purposes frequency, mode and median were all considered.

Identified Constraint	Mention frequency	Mode	Median	Ranking
Understaffing/Time constraints	52.9%	1	1	1
Money/Budgetary limitations	55.9%	1	2	2
Faculty members too busy or disinterested	35.3%	2	2	3
Perceived credibility/Non-academic status /Importance of teaching	29.4%	2	2	4
Availability of quality of developers or development opportunities for them	22.6%	2	2	5
Infrastructure	20.6%	2	2	6
Lack of understanding on the part of management	17.6%	3	2	7
Admin support lacking	14.7%	2	2	8
Lack of leadership/Internal politics	12.7%	2	2	9
Other	17.6%	3	3	

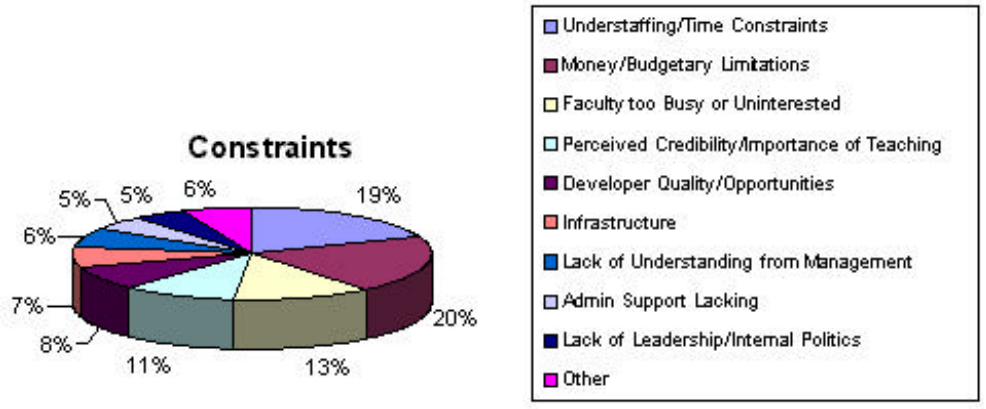


Table 4.16: Identified constraints in descending order of importance

Some of the constraints above may in fact be interdependent and, for instance, understaffing may be the result of budget constraints which may in turn be imposed because of a difference of priorities in terms of the importance of teaching development.

Such a conflation of issues, however, would be counterproductive, so Welman's (2001) comment applies

> *"We work hard to support changes in the faculty reward system that will give greater weight to teaching in this research-extensive university."*

4.5. Biggest advantage

Respondents have different perspectives in terms of what constitutes advantages. One respondent identified technology as a factor that raises awareness and as the catalyst that enhances sound educational practice.

> *"Technology-enhanced learning may be the catalyst we need to get faculty interested in understanding learning. When bells and whistles fail to improve performance, perhaps they will want to know why*." (Smith, 2001)

The responses in terms of factors identified as the primary advantages were again obtained from respondents with the request to identify and prioritise. The results, in descending order, are given in Table 4.17.

Identified Advantage	Mention Frequency	Mode	Median	Ranking
Own staff	42%	1	1	1
Variety/Programmes/Processes	32%	1	1.5	2
Respect/Academic status	26%	1	1	3
Budget	16%	1	1	4
Management backup	29%	2	2	5
Networks	13%	1	1.5	6
Previous success	19%	2	2	7
Well set up	16%	2	2	8
Other	13%	1	1	9

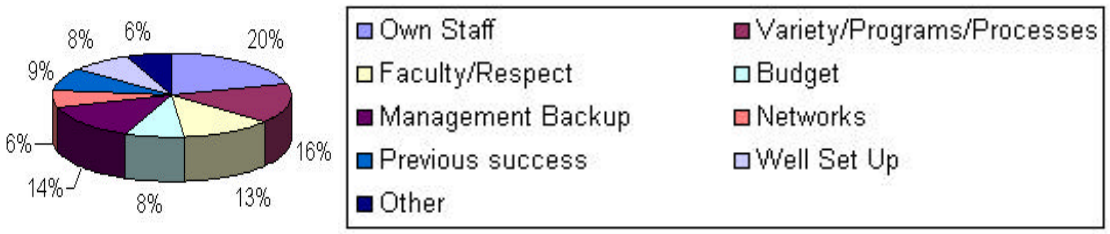


Table 4.17: Identified advantages in descending order of importance

5. Future

> *"A nation's competitiveness depends on the capacity of its industries to innovate*." (Porter, 1990)

The industries mentioned by Porter are looking at higher education to provide skilled people to drive these innovations. Staff members at universities will need to be equipped in order to meet these expectations.

> *"Change agents generally are interested in results. My background in both education and mental health has afforded me the opportunity to look at change differently and also to try this out in the educational sphere both with practicing educators and teachers in training. I see change as defined by growth and development as the primary goal of education. That being the case I see change as a process - journey - in which the educator partners with the learner to help the learner meet his/her goals*." (Willey,2001)

Change agents are not necessarily equipped to deal with this new environment. Respondents express both a vision for the reality of change and also admit to preferences that are more traditional.

> *"I can see that more demands will be placed on us to support staff who are teaching on line. Also, we will probably eventually offer our entire certificate programme on line as well as face to face. I imagine that we will eventually offer some developmental workshops on line. I would never like to see it replace face-to-face. Personally, face-to face work is my strength*." (Spiller, 2001)

In order to cast some light on possibilities for future staff development, the questionnaires probed respondents with regard to the following four aspects (Figure 2.1):

- ✓ Ideal envisaged staff development model
- ✓ Practical envisaged staff development model
- ✓ Absolute avoiders in staff development (No! Never, ever!)
- ✓ Vital elements in staff development (Yes, Yes Yes!!)

The results will be dealt with under subsections with the same headings.

5.1 Ideal envisaged model

Some respondents were quick to point out that no absolute and generic master model can ever exist.

> *"No such thing. Each campus needs a model that fits its own local culture*." *(*Ward, 2001*)*

Other respondents saw the benefit of identifying goals to strive towards and shared their views of an 'ideal model' for staff development.

In an attempt to ensure original and uninfluenced opinions from respondents, the questionnaires were not prescriptive in any way and no additional guidelines were supplied. However, the elements identified to include in an ideal model were not dissimilar. In the feedback, the ten most frequently mentioned factors central to an ideal model are given later in Table 4.19.

The identified factors were not predefined and respondents described their vision in their own words. However, for reasons of practical reporting, concepts are conflated under generic labels. To enhance common understanding these labels for top factors are now illustrated in Table 4.18 by means of representative anecdotes. Entries are in alphabetical order.

Generic label	**Anecdote**
Appropriate technology	*"Training and information fully accessible (even) on the Internet (synchronous AND asynchronous)*." *(*Miller,2001*)*
Buy in/Involvement	*"It would be nice if people would use the resources we have collected*." *(*Welk,2001*)* *"Greater use of our services and facility by part-time faculty*." *(*Price,2001)
Centralised/Integrated service	*"…which comprises both faculty development and academic support to students. We feel that the teaching-learning continuum should not be artificially separated. What we learn in our student support activities is very pertinent to our faculty development activities*." *(*Sandin,2001*)*

.../

Generic Label	Anecdote
Common focus	*"The accepted research on effective professional development reports direct relevance and embedded efforts with curriculum reform and institutional change. So planning, outcomes definition, professional development, and assessment are all aligned parts of the same system." (Greenberg, 2001)* *"…common vision of personal and professional development across campus; everyone on the "same page" regarding priorities." (Burnstad, 2001)*
Focus on learning	*"A community of scholars who take teaching and learning seriously as part of a great wheel of scholarship - discovery, integration, engagement, teaching/learning." (Smith, 2001)*
Professional development	*Faculty will be able to find here a wide variety of programs that meet their needs or directions to other sources of assistance. We will support non-tenure track faculty as well …, and we will provide stimulating offerings for faculty at all stages of their careers."* (Wellman, 2001)
Reward teaching excellence	*"We would be able to offer incentives for faculty to improve their teaching or to try something new." (Svinicki, 2001)* *"We will continually work with the faculty and administration to refine the faculty reward system so that teaching excellence is promoted.*" (Wellman, 2001)
Sufficient budget	*"Available resources ($, people, space, etc.) to place Faculty Development on the CentreStage of focus. It would find $ available for repair and resupply. It would find released time/load options available for use by faculty for intensive improvement/planning efforts*." (Uphoff, 2001)

Table 4.18: Clarification of factors in descending order of importance.

The ranking in Table 4.19 was determined by the frequency of mention of the factors to include in developmental interventions (See Section 9 in Chapter 2).

Ranking	Factor
1	Buy in/Involvement
2	Common focus
3	Centralised/Integrated service
4	Learning community
5	Focus on learning
6	Professional development
7	Sufficient budget
8	Reward teaching excellence
9	Importance of reflection/Continuous evaluation
10	Appropriate technology

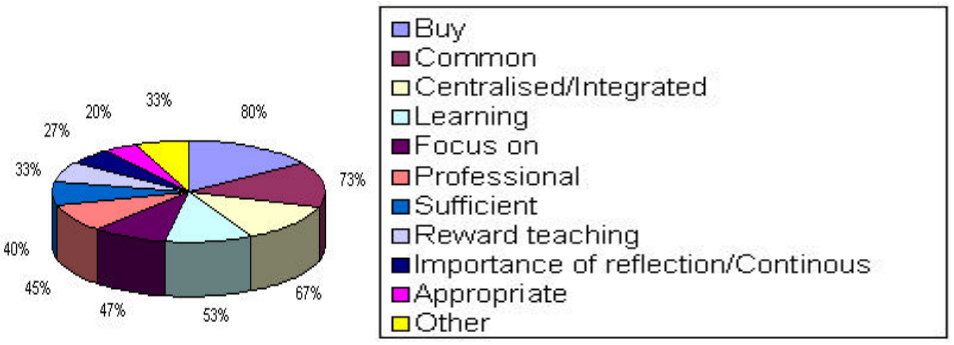


Table 4.19: Top ten factors central to development (descending order)

From this analysis it can be seen that technology, although important enough to be mentioned, came in last in the top 10.

5.2 Practical envisaged model

The realities of each institution impact strongly on what can or cannot be done. Respondents elude to this reality with logic:

> *"Whatever we have is always the most pragmatic blend of our goals and ideals within the constraints of our setting*."
> (Edmondson, 2001)

> …and

> *"(*We are*) unable to make the necessary changes because of the culture the college has*." (Burnstad, 2001)

The magnitude of changes also impacts on the practicality of interventions. As Smith advises, this need not all happen at once.

> *"Try small steps toward any of the above* (ideals) *rather than repetition of the status quo*." (Smith, 2001)

In defining an own approach that may work, certain guidelines need to be taken into account. These are elements to include, but equally important to keep in mind are factors that should be avoided.

Both these categories; the vital elements and the absolute avoiders were put to the respondents for their views.

5.3 No! Never, ever! (Absolute avoiders)

The seven elements below were mentioned as factors that could have disastrous consequences and should be avoided where at all possible. The column of frequencies adds up to more than 100% because participants could indicate more than one factor. The mode and median values help to facilitate a judgement in terms of ranking. The list is in descending order.

Things to avoid	Frequency	Mode	Median	Ranking
Getting involved in summative evaluation for promotion or tenure	28%	1	1	1
Forcing people	28%	1	2	2
Chasing technology	17%	1	1	3
Getting branded as only for those who are experiencing difficulties	21%	2	2	4
Never saying never	14%	1	1	5
Being seen as arm of admin	17%	2	2	6
Burning bridges	10%	1	1	7

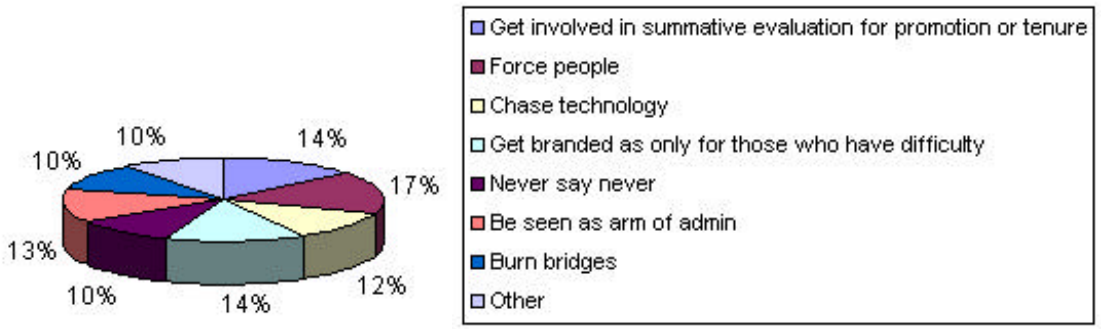


Table 4.20: Prioritised list of things to avoid

The factors listed above were identified by the respondents as absolute avoiders, but may well add value in specific circumstances. They are not categorically ruled out as never possibly being of any value. As a general practice however, or when in doubt, they should best be avoided.

5.4 Yes,Yes Yes!! (Vital elements)

Respondents also identified factors considered to be vital for inclusion into staff development programmes.

> *"To be blunt, to get faculty to participate, financial or other incentives are necessary and the upper administration has to be supportive. My current approach is to seek such internal support. If it is not provided, there is little chance for success* ."
> (Anon, 2001)

The list of vital elements is by no means complete. The elements are an extract of the recommendations of the specialist respondents as indicated in Table 4.22 later.

Table 4.21 reflects anecdotes to inform and from which to elaborate. Table 4.21 is in alphabetical order.

Generic Label	Anecdote
Action research and peer involvement	*"Faculty engagement in the design of our programs--it's the FACULTY Centrefor Teaching and Learning." (Wellman, 2001)* *"Good mixes of deeper reflection and practical action." (*O'Connor, 2001*)* *"Use faculty from all over campus in your activities. Make sure to convey the message that good teaching does not necessarily imply being in Education." (Sandin*, 2001)
Adapting to prime teaching needs	*"Focusing on retention rates and graduation rates as indicators of excellence in teaching/learning." (*Uphoff*,* 2001*)* *"Recognize the scholarship of what you are doing." (*Hicks, 2001*)*
Budget	*"Adequate staffing and budget." (*Frerichs, 2001*)* *"I've also learned that good advertisement and food accompanying the workshops, etc. is essential." (*Schuddder*,* 2001*)*
Networks and partnerships	*"Be active in local, national and international professional associations and other related activities." (*Hicks, 2001*)*
Obtaining, investing in and developing own staff	*"It is hard to fail with two levels of competence above you." (*Jones, 2001*)* "U*se facilitators or leaders that are good as facilitators--not just good and esteemed teachers/scholars." (*Huffaker, 2001*)*
Relationships	*"Recognize, reward, support, encourage. Find ways to use critics to your advantage. Say thank you over and over again." (*Edmondson, 2001*)* *"I also feel very strongly that confidentiality is a must for those individuals who seek help." (*Schuddder, 2001*)*
Support from top	*"An ethos that says teaching is important and rewarded." (*Frerichs, 2001*)* *Get tacit legitimization from university administration." (*O'Connor, 2001*)*

Table 4.21: Clarification of terms

Elements that should be included are ranked according to a combination of frequency, mode and median. The column of frequencies adds up to more than 100% because respondents could indicate more than one element. The mode and median values help to facilitate a judgement in terms of ranking. The list is in descending order.

	Frequency	Mode	Median	Ranking
Relationships	62%	1	1	1
Action research and peer involvement	34%	1	1	2
Adapting to prime teaching needs	28%	1	1.5	3
Obtaining, investing in and developing own staff	31%	2	2	4
Budget	24%	2	2	5
Support from top	14%	1	1	6
Networks and partnerships	7%	3	3	7

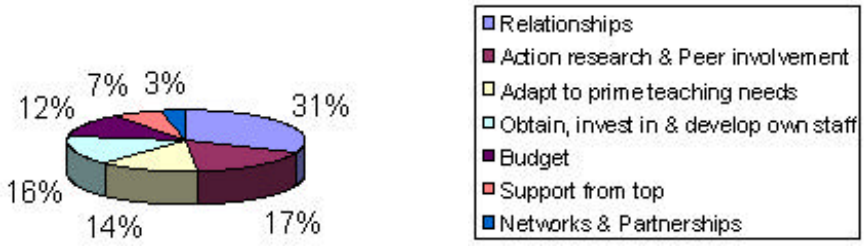


Table 4.22: Prioritised list of vital elements

Respondents mentioned networks and participation in related activities as one of the most important factors. While local relevance may make additional organisations vital within specific contexts, the following organisations were generally recommended.

- ✓ National Council for Staff, Programme and Organizational Development (NCSPOD)
- ✓ Professional and Organizational Development Network in Higher Education (POD)

- ✓ The Staff and Educational Development Association (SEDA)

6. Conclusion

The data given above is the essence of the 598 pages of information gathered via questionnaires. It is not presented or intended as absolute values or universally applicable recipes, but it does represent the opinion and views of the specialist respondents.

The top ten activities, which are all pursued by more than 60% of the centres, are listed below in Table 4.22. They are arranged in terms of descending commonality.

Ranking	Developmental activity	Frequency
1	Seminars/Speakers	98%
2	Workshops	98%
3	Comprehensive approach	87%
4	Professional development	85%
5	Continuous evaluation	82%
6	Mentoring	76%
7	Involved during induction	74%
8	Discussion groups	70%
9	Consultation	64%
10	Involved during career	64%

Table 4.22: Ten most popular developmental foci

As discussed earlier the questionnaires were purposely open-ended. As a result, some of the above can be classified as approaches while others could be isolated as activities. When this distinction is made, the list can be reduced to six most popular developmental interventions.

Ranking	Developmental activity	Frequency
1	Seminars/Speakers	98%
2	Workshops	98%
3	Mentoring	76%
4	Induction courses	74%
5	Discussion Groups	70%
6	Consultation	64%

Table 4.23: Six most popular developmental activities

Chapter 5 presents a synthesis of the literature and feedback.

Chapter 5

1. Introduction

Consider the argument by George Marsh:

> *A number of years ago a movie, Stand and Deliver, enjoyed box office success and has since been used as an inspirational tool for inducting new teachers and revitalizing veterans. The central character portrayed in the movie is the real-life Jaime Escalante, who taught poor Hispanic students in Los Angeles and succeeded in getting 87 of them to pass the Advanced Placement examination in calculus, a result so startling that the AP examiners required a second testing because they suspected cheating. Taking a new teaching position in Sacramento, Mr. Escalante had difficulty transferring his methods to the new school--only 11 students enrolled for AP calculus. This underscores the problems in finding methods that are universally successful. It also shows how complex and difficult are educational problems (Marsh, 2001).*

There are no quick fixes in education. Neither are there simple solution to problems in education regardless of context. Likewise, the practice of supporting higher education staff cannot be addressed in a uniform way either. Arguments given here are not intended to be universal recipes for success, nor are they aimed at defining a

single model to explain the phenomena as encountered during the research. Rather the chapter presents a metaphorical, visual reflection of the findings, in keeping with two of the suggestions of the analysis of this qualitative data guided by heeding the following suggestions from Bogan and Biklen (1992) already mentioned in Chapter 2:

- ✓ Play with metaphors, analogies, and concepts. "Nearsightedness plagues most research…Ask the question: "What does this remind me of?""
- ✓ Use visual devices. Trying to visualize what you are learning about the phenomenon can bring clarity to your analysis. Such representations can range from "primitive doodling" to sophisticated computer generated models.

When a visual model is created, that consist of geometrical it is inevitable that the underlying mathematic formulae will be called to mind.

It must be borne in mind that this is a qualitative study and that the diagrams that follow fall in the category of pseudo mathematics rather than scientific calculation.

Presidents of this procedure can be found in the Brookes equation *(*Brookes, 1975 and 1977) and Dale's "Cone of experience" (1946).

Even Maslow's hierarchy of human needs(1970) is given in the form of a triangle though nothing is said between the numerical value of the base or the perpendicular height.

1.1 Purpose of the discussion

Chapter 5 compares literature (Chapter 3) and practice as represented by the feedback received from the e-mail questionnaires (Chapter 4). This is supplemented by focused discussion of factors impacting on the staff development arena. This Chapter aims to:

- ✓ highlight primary factors;
- ✓ identify methods by which behaviour can be understood; and

- ✓ elude to key concepts to be aware of when approaching staff development.

When the findings presented in Chapter four are considered holistically, four issues seem to stand out. They include the willingness of staff to be involved in developmental interventions (receptivity), the availability, clarity and accessibility of information (lucidity), the need for networking (dependency) and the use of technology.

The discussion will therefore be structured under the following sub-headings:

- ✓ Receptivity
- ✓ Lucidity
- ✓ Dependency
- ✓ Utilising technology

2. Receptivity

Receptivity is a term used to indicate the degree to which staff would be willing to participate in developmental interventions out of free will. Section 2.1 describes these interventions while section 2.2 addresses factors influencing receptivity.

2.1 Developmental Interventions

Respondents indicated that while there are numerous names under which development centres can function, they essentially address comparable aims through largely similar activities. The majority of these activities do not function as individual interventions, but rather as co-operative, peer-informed instances of cognitive scaffolding. This correlates with the research done by Ference and Vockell (1994), indicating the need of adult learners for learning which is:

- ✓ active;
- ✓ experience based;

- ✓ life-centred;
- ✓ solution driven; and
- ✓ problem based.

As underlined by the quote below, faculty members are not always a captive audience;

> *"Many faculty are not convinced that this is a product that they need. If they were convinced, the task would be very different."* (Smith, 2001)

This cannot be used as excuse not to provide opportunities. There is a burden on faculty members to acquaint themselves with educational and didactic principles. As a rather strongly phrased opinion expresses it within the context of engineering:

> "*Teaching when you don't know how may be considered unethical!"* (Wankat, 1993)

Wankat bases his statement on the fact that the American ethical code for engineers includes the following:

> *"Engineers shall perform services only in the areas of their competence."* (ABET code according to Wankat, 1993)

But awareness and a desire to make a difference may not be enough. Time constraints were ranked as the most limiting factor by respondents.

> *"The trick is to find the best times for faculty attendance. This is always a problem related to classes and office hours." (*Welk, 2001)

The time constraint problem is augmented by the number two and three constraints, namely budgetary limitations and faculty members that are either too busy or uninterested. As these three are not unrelated, it would seem that a solution which addresses cost and temporal issues would be beneficial.

Some authors may see this as another opportunity for technology to prove itself indispensable (Shih and Sorcinelli, 2000), but exactly the two constraints, namely, increased time commitment and lack of money, were the main barriers to electronic delivery of education. (Berge and Muilenberg 2000). Simplistic solutions of throwing technology at problems do not have a realistic chance of succeeding (Norman, 1993).

To explore factors impacting on the likelihood of succeeding, one needs first to determine to what extent your audience would be susceptible to change interventions.

Through the following sections a comprehensive model is gradually constructed to visually amalgamate the aspects of receptivity, lucidity, dependence and technology. The visual representations of receptivity and lucidity (the receptivity cone and the lucidity pyramid), discussed later, incorporate the sub-elements of receptivity and lucidity, namely, perceived need, change exposure, availability, clarity and context.

2.2 Factors influencing receptivity

The first dimension to receptivity is the locus of apparent need. Should change agents offer workshops on issues that staff perceive as valuable in order to address an immediate need, staff would be more likely to attend. For example, workshops on issues like basic word processing are regularly attended. Conversely, if change agents attempt interventions that staff members view as a lower priority for them personally, the demands on their time may indicate activities of higher priority (Felder, 1994). Staff are less likely to attend training sessions on topics that are of organisational, rather than individual concern, such as legislative changes that require sensitising and retraining of staff; new approaches like outcome based curriculum design, learner-centred education etc.

The apparent relationship between perceived need and voluntary participation can be viewed as the diameter and the surface area of a circle. As the one increases, so does the other.

There is no data to indicate the mathematical precision of this relationship. The circle merely serves to show that as the perceived need increases, so does the likelihood of voluntary participation.

Figure 5.1 shows instances of low, medium and high perceived need (diameter) and voluntary participation (surface area).

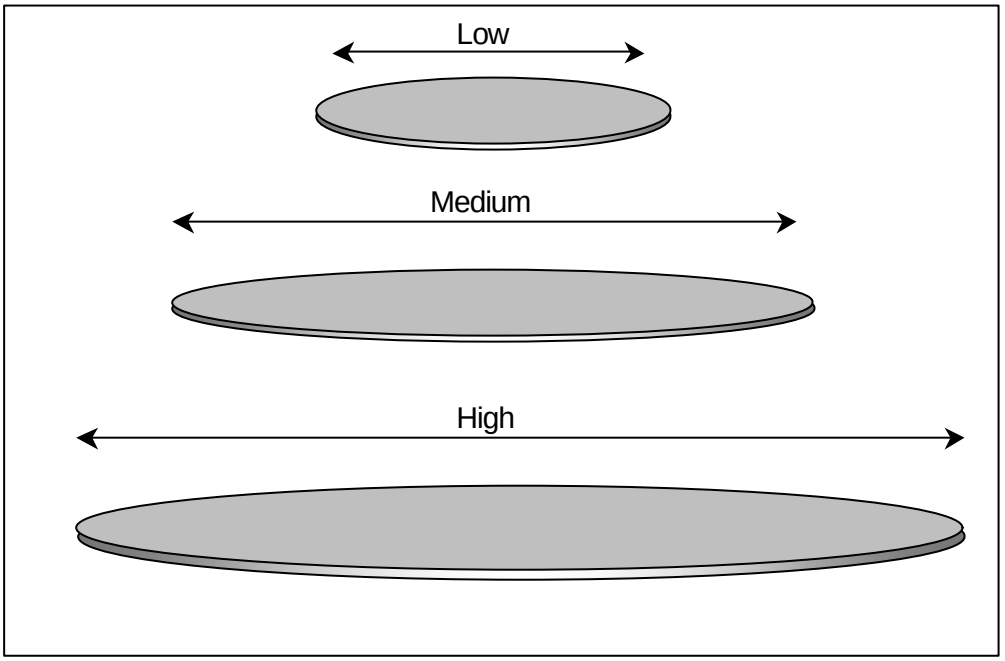


Figure 5.1: Apparent relationship: perceived need and voluntary participation.

This metaphorical circle of need and participation will form the basis of what will be called the receptivity cone.

Another factor impacting on the receptivity of staff with regards to participation in developmental interventions, involves the effect of change on staff and their ability to deal with change constructively.

As Chapter 3 explains Brock and Salerno's 1993 change cycle in more detail, only the main stages are repeated in the Table 5.3 adaptation below.

Stage	Feelings of:	Thoughts are:	Behaviour is:
Loss	Fear	Cautious	Paralysed
Doubt	Resentment	Sceptical	Resistant
Discomfort	Anxiety	Confused	Unproductive
Discovery	Anticipation	Creative	Energised
Understanding	Confidence	Pragmatic	Productive
Integration	Satisfaction	Focused	Generous

Table 5.1: The impact of change (Adaptation from Brock and Salerno, 1993).

It is not the intention to prove their theorem by comparing comments made by respondents to indicate that the various stages are represented by the respondent group, because the respondent group is not the prime target of the developmental process, but rather represents the reactions to change that agents can expect from the people who do find themselves at various stages of the change cycle.

As seen in Table 5.1, people who find themselves in the early stages of the change cycle, might experience feelings that will prohibit them from utilising the opportunities to work through those changes. The feelings of people who are experiencing the first three stages of change namely loss, doubt or discomfort, are not the type of feelings that foster thoughts conducive to the types of actions that will persuade people to volunteer for developmental activities identified as popular by the respondents, such as seminars or workshops. Instead, Brock and Salerno (1993) perceive these thought patterns to be cautious, sceptical and confused.

In fact, as Brock and Salerno (1993) also indicate, the natural actions of these people are paralysed, resistant and unproductive; not the type of person likely to volunteer for any developmental activity.

Intellectual drift as explained in Chapter Three (see Section 2.1), further adds to these perceptions of insecurity. This may partially explain why Chapter 4 (3.2.3) identifies no less than nine types of activities as interventions aborted because of reasons approximating staff members not voluntarily participating.

By implication people who have progressed through to the stages of discovery, understanding and integration, may show energised, productive and generous behaviour that can be interpreted as indicators comparable to those of the attitudinal domain of receptivity.

Receptive attitudes are fertile ground for developmental interventions and add value to co-operative learning environments. This correlates with the high value rating respondents gave to networks and collegial support.

Change per se can therefore not be identified as the sole determinant of whether a member of staff will utilise the opportunities for development or not. The key factor is the staff member's reaction to the change and the resulting attitudinal position within the change cycle.

Unless staff members are made aware of this impact of change on their attitudes, their natural reactions to change therefore would indicate an inverse proportionality between the likelihood of staff volunteering participation and their exposure to change. Those still in an early stage of the change cycle (loss, doubt, discomfort), may be less likely to volunteer than those in the later stages of change (discovery, understanding, integration)

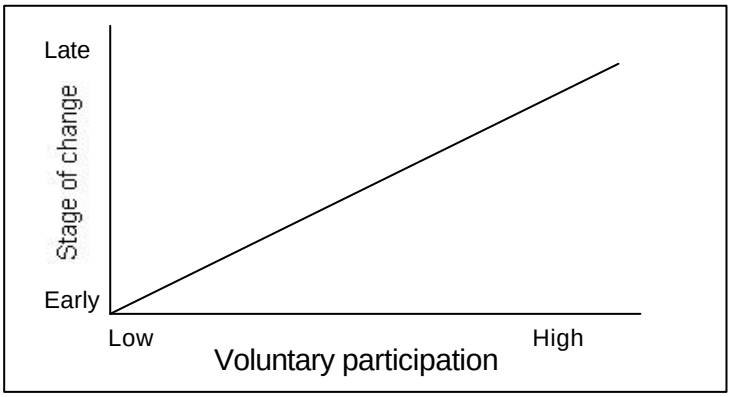


Figure 5.2: Inverse relation between change exposure and voluntary participation

It can be seen, therefore, that the perceived need and the level of comfort with change both influences voluntary participation. If these two influencing factors are combined the likelihood of voluntary participation can take the shape of a cone. Again, this is a metaphorical, rather than a mathematical representation. For the sake of this dissertation the resultant shape will be called the receptivity cone (Figure 5.3). The cone forms one of the shapes that contribute to the eventual model.

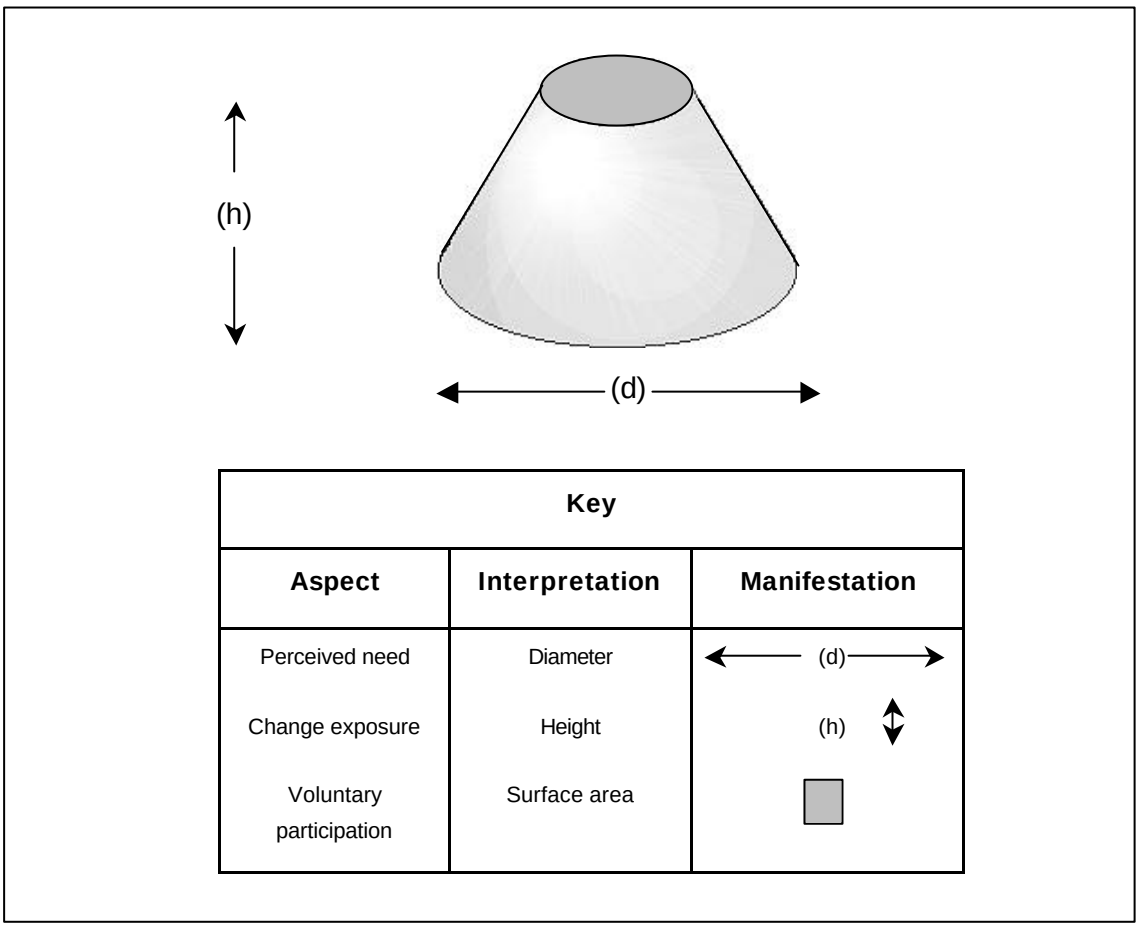


Figure 5.3: The Receptivity Cone

This section discussed the concept of receptivity and the design of the receptivity cone. Receptivity is representative of personal attitudinal dimensions. It accommodates the factors which change agents need to be aware of when debating voluntary participation, buy in and utilizing of opportunities. Staff development practitioners are more likely to reach people who want to be reached. Feedback received indicate that participants displaying characteristics in correlation with low

levels of receptivity may not appreciate interventions at all. Where people are enthused and show signs of higher receptivity, they utilise more complex opportunities. As an example it could be mentioned that some respondents to this research went to a great deal of trouble to ensure compatibility of systems in order for the researcher to access some of their materials. Like-minded individuals may seize opportunities regardless of initial hurdles or perceived obstacles.

Irrespective of context, there would not be a singular approach to development that would suit all clients.

Receptivity is a personal dimension. However, is not the only one. Context and content also need to be considered. Lucidity addresses these.

3. Lucidity

When the data presented in chapter four is analysed, three closely related aspects emerge:

3.1: Availability;

3.2: Clarity; and

3.3: Contextualisation.

The combination of these three aspects will be called *lucidity*. Section 3.4 deals with lucidity as a role player in this study.

3.1 Availability

Some pieces of information are just not available, even in the age of the Internet, multibillion research and global awareness. An extreme example would probably be the absolute cure for HIV/AIDS. There just are no clear answers available at the moment.

Non-existence is one form of not being available, but there is a huge body of information that is available because it exists although possibly not available through lack of access. These are factors such as privacy and language. The best

information possible would be useless if in some incomprehensible or strange language, encrypted or hidden behind a firewall. This also includes instances where information was not properly recorded in the first place. For example, consider the techniques used to create many of the Seven Wonders of the World. The artefacts remain as proof that the information, now lost, was once available.

Mostly, though, information is available if you know where to look, although quality of information is not guaranteed. For the moment, the focus is purely on availability. As a simple test for availability, an Internet search using the Google search engine for information on Nelson Mandela revealed a suggested 173 000 sites promising more information - this in a claimed search time of just 0.09 seconds. In practical time (including dial-up and log-on) this exercise took under four minutes via a relatively slow home modem system.

However, is media just a matter of representation or does its influence go beyond making information accessible? Table 3.9 summarises the impact of media on knowledge in an adaptation of the work of Daniel (1996). It also implies that modern media may be information rich, but this information needs to be contextualised in order to provide meaning to the information. Multiple perspectives need to be accommodated.

The ideas in Table 3.9 are echoed by Breivik who moves beyond the issue of media as prime determinant of access.

> *"…But where most politicians see the problem as one of access to computers and the Internet, a growing number of leaders in higher education see it more as an issue of literacy — information literacy." (*Breivik, 2000)

Breivik (2000) quotes The American Library Association's Presidential Committee's definition for Information literacy as:

> *"…the ability to know when information is needed, [and] to be able to identify, locate, and effectively use that information for lifelong learning and problem solving."* (ALAPC in Breivik, 2000)

This inability to convert opportunity into lasting improvement is echoed by one respondent, Spiller (2001) who expresses disappointment with "*Staff who have attended developmental workshops and it's made no impact on their thinking and their teaching*".

For the purpose of this research, availability is representative of the combination of three interdependent elements of availability, forming the acronym APE, namely:

- ✓ **A**bility of the individual to utilise opportunities;
- ✓ **P**ractical accessibility of the information; and
- ✓ **E**xistence of applicable information.

3.2 Clarity

Clarity is an important aspect when dealing with situations where individuals do not have the opportunity or inclination to obtain assistance. Unless instructions and or guidelines are understood properly, their impact could be limited proportionally to the lack of clarity. This shortcoming can be on the side of the facilitator as well as on the side of the receiver of change communication. The following respondents describes a scenario where clarity of focus was a limitation to both parties.

> *"My biggest success was to listen carefully to those faculty and TAs to determine their most immediate teaching issues and problems. I would then help them solve those problems. Eventually more problems would become relevant and we would work on those. After a lot of time spent dealing with small problems, faculty and TAs would adopt a learning perspective. Even if they wouldn't admit that learning/teaching was as important as research, they WOULD change perspective. When I failed, it was when faculty had arcane perspectives of teaching and learning but didn't see that they had any problems at all with teaching. Even with bad evaluations, those faculty often would not see their own contributions to students' problems.*. (Reed, 2001)

A more user-friendly way of making information available could improve clarity, while the original format may well be quite fathomable to other individuals.

The cultural richness of the South African population has created a situation where a majority of learners need to communicate in languages other than their mother tongue. Internationally there are also a number of institutions of higher education that experience language problems with students from non-English backgrounds. A respondent from a Spanish speaking community from Southern America provides one such example.

> *"We put together a Fall Institute on the development of linguistic competencies across the curriculum. Our hope was to give professors of various disciplines sufficient know-how in order to work on their students' writing competencies regardless of the discipline they taught. We soon discovered that many faculty feel very insecure about their own linguistic competencies and very hesitant to let others know about this." (*Sandin-Fremaint, 2001)

The problem of clarity is not limited to everyday language issues. Subject specific terms and layout can also reduce clarity. While information in subject specific language may be clear to experts, learners may find it difficult to understand or relate to practice. The fact that information is available does not guarantee that the true meaning will be clear to all. It is evident that where immediate assistance is not readily available, clarity of instruction is essential in staff support.

3.3 Contextualisation

Nine respondents mentioned context as an important factor. This is even more significant when considering that the questionnaire did not even include the word 'context'. Two examples with general reference follow:

> *"I might mention to you that after 25 years of think about and working in this arena, I am convinced that effective faculty development practices are ALWAYS context sensitive and campus specific."* (James, 2001)

and

> *"…teaching must be considered within the context of all the challenges they face."* (Wellman, 2001)

Smith mentions context with relation to technology selection:

> *"I think there is lots to be done on understanding how best to use technology to enhance learning. When there is understanding of which media are most effective for which contexts, there can be great success, but technology is not a panacea to be used in all situations. It requires judicious combination with other innovative teaching strategies."* (Smith, 2001)

An American respondent warned against experienced change agents working in new environments:

> *"Context is critical no matter who leads the effort."* (Anon, 2001)

Respondents agree that there is a need for adoption of theorems for local conditions and contexts.

3.4 Lucidity as role player

As section 3 explains, lucidity has three contributory factors:

- ✓ Availability;
- ✓ Clarity; and
- ✓ Context.

Often, these factors could be addressed by technological means. An example could be work in strange languages. While not perfect, on-line translation is already possible, making work in different languages accessible.

Context could also be enriched if additional information is made available quickly and affordably. The fact that this research could be underpinned by the opportunity to do member-checks within reasonable time frames making use of e-mail attests to this.

Practitioners, especially those in remote areas, seem to realise that availability would also have to be addressed by technological means.

> *"I can see that more demands will be placed on us to support staff who are teaching on line. Also, we will eventually offer our entire certificate programme on line as well as face to face." (*Sandin-Fremaint, 2001)

While the technological possibilities lighten the practical burden of accessing or making data available, the objections of Socrates (See Chapter Three), still apply. These objections are founded mainly on issues dealing with clarity, lack of context and the inability of the arguments to defend itself (Norman, 1993).

Unless the aspects which constitute lucidity are considered and catered for, technology may place us back in the year 360BC with *"...people who will:*

- ✓ *be hearers of many things and will have learned nothing*
- ✓ *appear to be omniscient and will generally know nothing*
- ✓ *be tiresome company, having the show of wisdom without the reality." (*Plato, 360 BC)

By viewing the three elements; availability, clarity and context as the three sides of a pyramid, lucidity can be graphically represented.

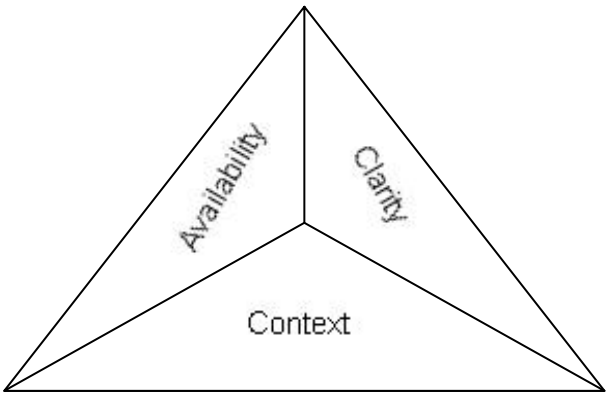


Figure 5.4: Lucidity pyramid

As in the example of the cone, the pyramid is a metaphorical representation only and no claim of a mathematical underpinning is made.

4. Dependency

Professor Robert Kraut (Kraut, 1999) from Carnegie Melon University caused a stir some three years ago when he reported his findings that social networks of heavy internet users had declined and such users reported feelings of loneliness. However, his recent work seems to contradict his earlier findings (Guernsey, 2001).

People like Moore (1991) and Daniel (1995) also acknowledge possible initial negative experience of such users. Rogers (1995) identifies the four main elements of the diffusion of innovation as:

- ✓ Innovation,
- ✓ uncertainty,
- ✓ diffusion; and
- ✓ adoption/rejection.

So when it comes to group dependence and the possible utilization of technological options, the outcome of Rogers' final element namely adoption or rejection can partially depend on individual characteristics like learning style preferences.

4.1 Social learning style preference

Table 3.10 shows a number of approaches as identified from literature, such as coaching, encouragement and friendship. Table 4.12 shows approaches currently practiced by the respondents to the questionnaire (seminars, workshops, mentoring, etc.) Table 4.13 holds recommendations to more possible approaches. The large spectrum of approaches could be a result of the fact that not all individuals learn in the same way, neither do all facilitators of staff development operate in the same way.

Table 4.16 indicates multiple reported limitations. Many of these limitations seem to put pressure on staff development practitioners to approach developmental interventions through group interventions. This possibility is supported by the fact that the majority of current developmental activities (Table 4,12) are not primarily focussed on individuals. However, social learning style preferences differ and not all individuals work in groups as a result of choice. In terms of group work the following distinction holds a useful summary:

> ***"INDIVIDUAL LEARNER*** *- people who demonstrate this preference learn best and get more work done when they learn and work by themselves. They think best, and remember more when they learn alone. They care more for their own opinions than for the ideas of others. Thinking, learning, remembering are considered solitary experiences.*
>
> ***GROUP LEARNER*** *- people who demonstrate this preference, learn best with at least one other person present. They do not get much done studying alone. They value others' opinions and preferences. Group interaction increases their learning and later recognition of facts. Socializing is important to them."*(Anonymous adaptation from Kneak, 2001)

The intention is not to say that individual learners can not function well in a group, but that their natural choice would not be to be dependant on others.

4.2 Benefits of group work

Should people work in groups, there are multiple benefits. Bandura is famous for his work on social learning through modelling (Batt, 1999). Named vicarious learning, it is value gained from own thought process and experience, but also from the observation of others (Bandura, 1986). Citing multiple quality-benefits because of group interdependence Batt (1999) advocates self-managed groups as a way of approaching total quality management.

The benefits of verbalising ideas, sharing thoughts, sound boarding and collaboration in a community of practice underpins the goal of at least one staff development centre

> *The goal of our Center for Teaching, Learning, & Faculty Development has been for faculty to become more reflective about and to communicate more about their practice.* (Marcinkiewicz, 2001)

In the South African context the ability to communicate both orally and in writing as well as the competence to function in teams is no longer considered optional, but viewed as a critical area of competence stretching across the boundaries of subject specificity (South Africa, 1995).

4.3 Dependency impact

Even in traditional approaches to staff development, respondents catered for different foci.

> *"We work with faculty one on one or in groups to pursue any teaching interests or problems they have." (Reagan, 2001)*

The possible use of technology should not change this. The preference of the target audience for either individually or group-centred approaches is not crucial to the success of technology as a factor in supporting staff. This is because there are various technical options available that can accommodate either preference. What is important though is that change agents take note of these factors, provide alternatives and accommodate the individual differences. Where individuals do opt for more singular approaches, provision needs to be made to incorporate the inputs of these individuals in non-threatening ways.

Dependency is not sufficiently crucial to singularly determine success. It is important though, to keep possible implications of dependency in mind. A metaphorical way of thinking about dependence could be to compare it to a flat surface. Nowhere higher or 'better' than anywhere else, yet representative of a completely open area of positions and possibilities. The receptivity cone, the lucidity pyramid and the surface

representation of dependence will be combined into a single model later in this section.

5. Relationships

The first part of this chapter considers three main categories of influencing factors, namely:

- ✓ receptivity;
- ✓ lucidity; and
- ✓ dependency.

This section deals with the implications these factors hold for staff development when interacting with each other.

5.1 Receptivity and lucidity

Plotting receptivity and lucidity against each other creates four quadrants.

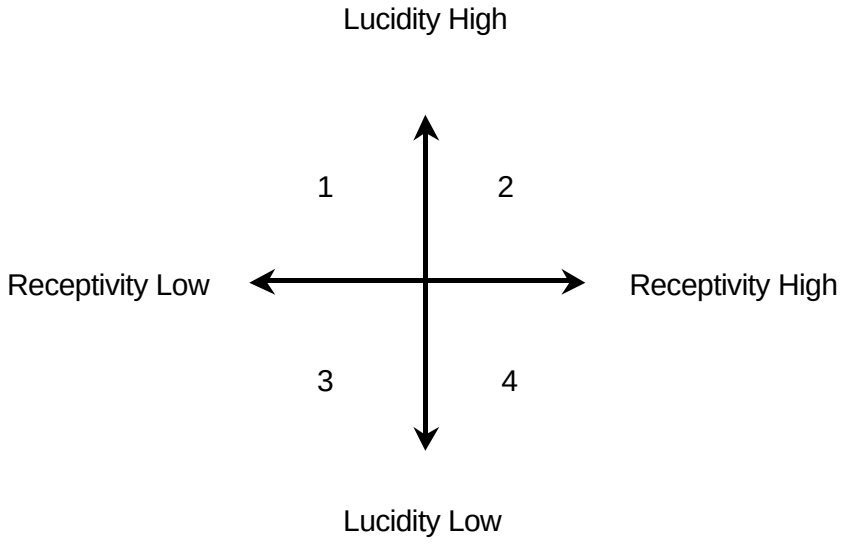


Figure 5.5: Interrelation between Receptivity and lucidity.

Quadrant number one is where information is typically available but staff members are not receptive. This is adequately explained by a situation where the need was not experienced by faculty members.

> *"Convincing faculty that teaching is important was a very difficult thing to do in many disciplines at the University of Texas at Austin."* (Reed, 2001)

Another example, this time from South America, is where the need was experienced, but the change exposure was too high and staff acted defensively

> *"We put together a Fall Institute on the development of linguistic competencies across the curriculum. Our hope was to give professors of various disciplines sufficient know-how in order to work on their students' writing competencies regardless of the discipline they taught. We soon discovered that many faculty feel very insecure about their own linguistic competencies and very hesitant to let others know about this*."(Sandin, 2001)

This first quadrant is the one where barriers need to be broken. Just to make information available would not be likely to add major value as staff members low on receptivity would not be likely to take on-line courses conscientiously or participate in discussion groups.

Moving to quadrant number 2 breaks the barrier of low receptivity. In this instance the information is still readily available, but this time the receptivity of the audience stems from their perception of need. As one respondent puts it:

> *"My biggest success was to listen carefully to …faculty... to determine their most immediate teaching issues and problems. I would then help them solve those problems. Eventually more problems would become relevant and we would work on those. After a lot of time spent dealing with small problems, faculty … would adopt a learning perspective."* (Reed, 2001)

Where quadrant 2 conditions apply, people may be receptive enough to browse through web page content, since they could obtain access to information in their own time and according to their own priority. Clearly this is a position of choice.

The lower quadrants are where lucidity is on the lower side. Quadrant number 3 has the dual low. As this is not a priority for staff members, this would be the type of situation where change agents will be likely to be inactive. However, when special circumstances dictate a need, but a solution to the need is not forthcomming, and staff are not readily available to co-operate in the identification of such a solution, the complexity may force change agents to look outside their own institution to network contacts in order to help them generate a solution.

> *"If you are not aware of the organization now, you need to look into the POD Network, Professional and Organizational Development Network in Higher Education. If there is a "mother" network, that is it."* (Rutherford, 2001)

The final quadrant where there is a common receptivity, but lacking lucidity. The reason for the lack of clarity needs to be explored in order to address the problem. If the problem resides in lacking skills to access the relevant information, interventions to provide the necessary skills may be received positively as indicated by the South American respondent.

> *"Technology is one of our areas of interest in our efforts to improve teaching-learning on our campus. We have a Resident Professor in Technology who organizes workshops and panel discussions, and who serves as consultant for faculty interested in developing the technological aspect of their teaching-learning practice."* (Sandin, 2001)

Another respondent shows that a different approach would be apparent when the information is not available or consensus not reached. Where competence and access allows for electronic discussion, there are various virtual communities that will be able to assist in identifying solutions or options.

> *"There is considerable tension between the centers about the role of teaching and learning ideas in relation to technology. Similar vocabulary is used to describe very different ideas and assumptions, which makes it hard to determine how our ideas are similar and different."* (Smith, 2001)

In summary, consider Figure 5.5 for the possibility of technological solutions. In quadrant 1 where people are not receptive, but information could be accessed and has the potential to be clear and contextualised, technology could be used to make information available. High lucidity may induce people to use technology to access information on their own initiative, particularly when supported by additional change management methods. The high lucidity may lure people to utilise technology. Since this needs to be part of a comprehensive approach, this may not be the ideal position from which to start change initiatives.

A more favourable place to start could be quadrant 2 where lucidity is still high, but where staff now show attitudes corresponding to high levels of receptivity. Here people will welcome the benefits of high lucidity and seize the opportunity to access information in faster, possibly cheaper and easier ways.

The quadrant 3 scenario is the least favourable for technological benefit. Not only are the respondents not ready to pursue opportunities, but the unfavourable lucidity context, makes for poor experiences.

The area providing second best opportunities for technological interventions is in quadrant four where people may be willing to work through some of the shortcomings which result from the low lucidity index. Capturing information regarding these instances may provide useful indicators to identify situations where faculty members who are already positive, may get better use from information by addressing the reasons for the existing low lucidity.

5.2 Receptivity and dependency

Plotting receptivity and dependency against each other again creates four quadrants.

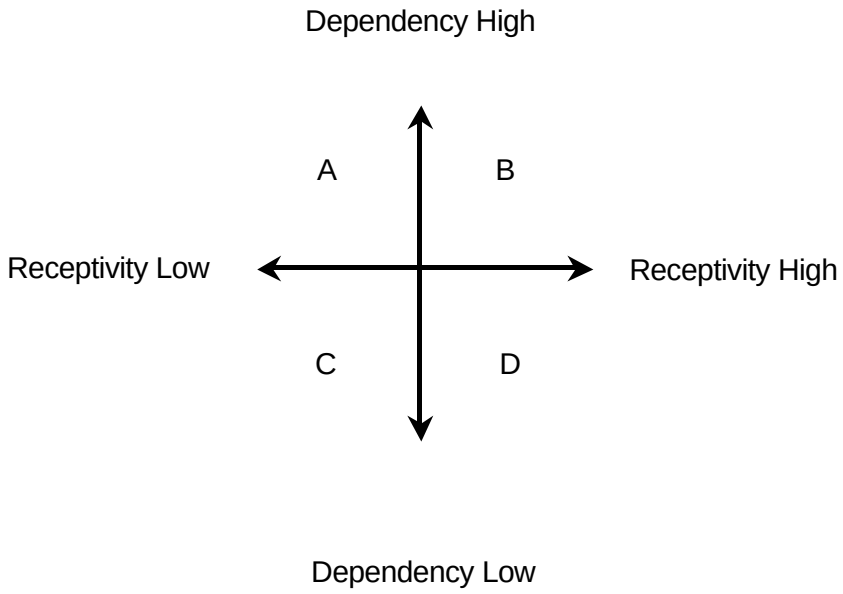


Figure 5.6: Interrelation between receptivity and dependency

Quadrant A is where a staff member typically is not receptive, but highly dependent. These people like to work in groups, prefer synchronous communication and supportive contact. Technological options are not likely to prove the ideal tools for this situation. The following respondent provides an example where incentives to overcome the receptivity problem are more likely to succeed.

> *"I joined about 10 other faculty in a trip to a workshop on critical thinking in Charlotte, NC. That experience—not just the workshop itself but the chance to travel together and get to know each other--spawned the university's "Inquiry-Guided Learning" (IGL) initiative.*" (Wellman, 2001)

The double high is in Quadrant B where respondents have indicated that the high receptivity provides the opportunity for peer interaction and reflection activities. While this traditionally is the domain of physical contact, some technological innovations like chat rooms or video conferencing could also play a part.

> *"…a weekly teaching co-operative in which 15 - 20 faculty meet each week to talk about teaching. This past semester all of them were conducting action research projects to study the effect of their pedagogy on their students' capacity to become responsible, ethical, engaged citizens. Powerful conversations!"* (Driscoll, 2001)

Or

> "*The most rewarding experience for me is the 30-hour retreat I take 15 faculty on at the end of each year. We read a book ahead of time and have time for silence, writing, and talking--also long walks on the beach."* (Frerichs, 2001)

Individual learners with low receptivity typify quadrant C people. Again something needs to be done to break the non-receptivity. Another respondent recorded such a case.

> *"A new faculty member ignored our services. Word soon came around that he was a horrible teacher, but he still avoided us. (Our services are only voluntary.)…One of his friends … suggested that he talk to me about it. …He came over and we talked for several hours. I gave him "new perspectives" on what was happening between him and his students, suggestions on dealing with students, etc. (Basically, I talked to him about to be a nice person.) The next semester went much better. I was shocked that such a short intervention helped, but he has thanked me several times since."* (Mettetal, 2001)

The last quadrant (D) in this interrelation deals with highly receptive individuals. Technology has much to offer these people. The search capabilities of computers make information available to work with at leisure. Some individual interventions may be necessary in order to equip the individual with the skills to utilise the technological options.

> *"A colleague that would not touch the computer for his life now uses computers in his instruction."* (Ogunyemi, 2001)

For the interaction between receptivity and dependency, the difference may lie not as much in whether technology will enhance the experience of learners, but in the selection of the tools and applications that may be useful. Highly dependant users, may prefer video conferencing which includes the visual 'presence' of others while less dependant users may be indifferent to such social preferences. More receptive users may be willing to sort out technological glitches on their own, while less receptive users may want an assistant to guide their passage into the realm of technology.

5.3 Receptivity, lucidity and dependency

All three these factors can be combined to depict quarters 1 through 4 as well as A through D in one three-dimensional interrelation.

The front octants contain the low dependency quadrants and the shaded back octants contain the high dependency quadrants. The octants above may assist change agents to sufficiently analyse each particular situation in order to class it accordingly.

Attempting to assign particular technological solutions to specific combinations would limit the use of the classification to the items specifically measured and mentioned. A more inclusive and flexible understanding comes from evaluating the factors in terms of their impact on technology use.

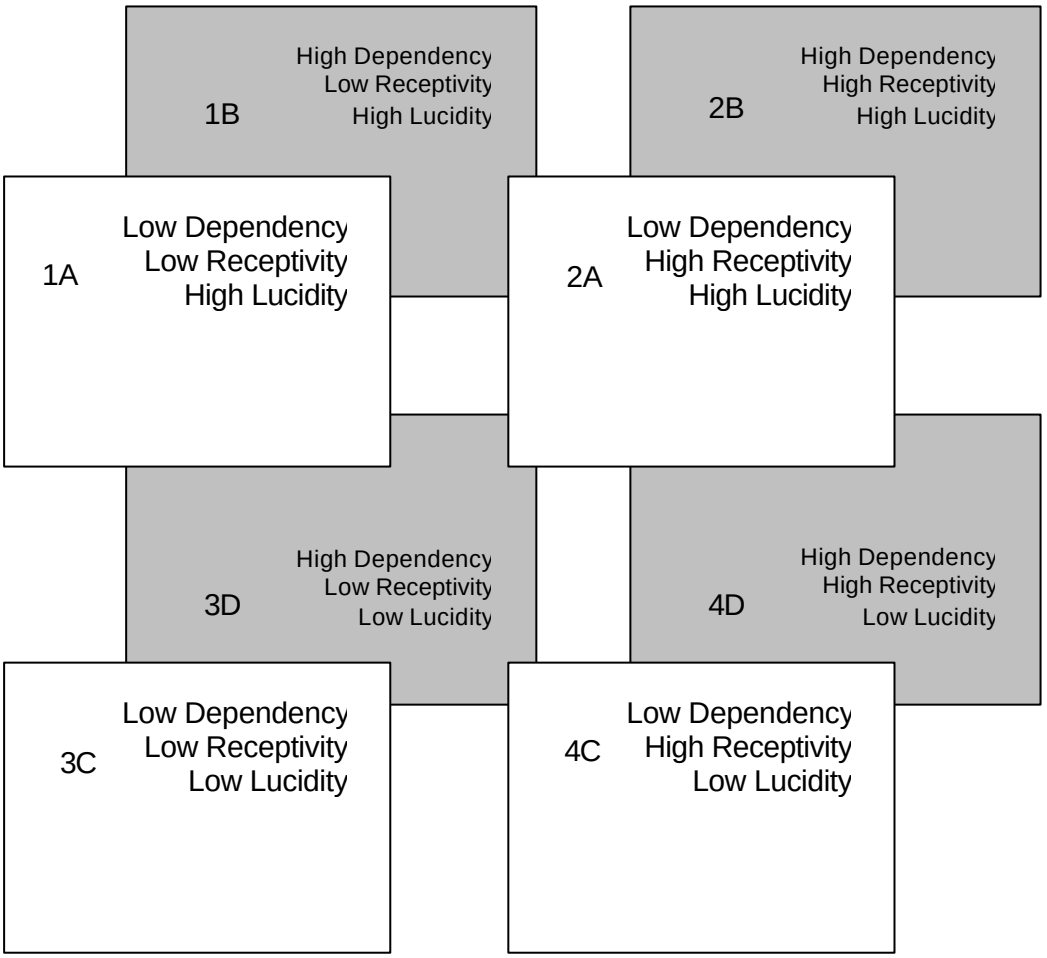


Figure 5.7: Interrelation between receptivity, lucidity and dependency

As indicated in section 4.3 the impact of the dependency dimension is not so important to determine whether technological solutions could be applied, but rather to inform on different options which need to be considered.

6. Technology

Availability of technology does not guarantee acceptance and usage (Rogers, 1995). Three aspects influence the likelihood of acceptance of technological solution acceptance:

- ✓ the extent to which it matches user needs,
- ✓ its ease of use, and
- ✓ its capacity to make work easier. (Collis and Verwijs, 1995)

Section 5 argues and Figure 5.5 (receptivity and lucidity) demonstrates that staff development is multifaceted. However, the groupings depicted in Figure 5.7 do not interact to represent any particular model or three-dimensional representation of the individuals concerned, but rather encompass the various situational profiles of the individuals who can benefit from the developmental interventions.

This multitude of possibilities (groupings in Figure 5.7) leaves the change agent with the challenge to find tools to serve as many of the clientele as possible in a way that is close to their own particular situational profile preference. In the words of another respondent when commenting on e-learning implementation:

> *"We should approach e-learning ... from a stronger position. Instead of being staff people looking for vision and hoping for support, and working to please, we need to be business people – forming own visions, initiating new conversations and focussing on results." (Werner, 2001)*

To inform on ways to create this 'own vision' and to create these 'new conversations', we could have an array of options that would each resemble and address the particular circumstance of the particular target audience. Technology can prove helpful in this regard.

Another group of people, those with low dependency and a high receptivity, but pursuing information with a high lucidity index (Octant 2A Figure 5.7) are people who can work on their own, want specific information and possess the ability to access and interpret information. This is the type of person who will see the relative advantage of, for instance, a web page with information and hyperlinks leading to additional and alternative opinions. As a result of the perceived benefit, it would require little effort to persuade such persons. The possibility of experimenting in private could assist in a non-threatening opportunity to implement. This correlates favourably with Rogers's (1995) list of innovation attributes.

Should people from octant 3D (Figure 5.7) be the target audience, this scenario for adaptation of development interventions through technological means would be less favourably accepted. Not only are they not likely to be inclined to individual, active, solution generation, but the nature of the information, and/or their ability to exploit what is available, is not sufficient to allow unassisted utilisation. Highly dependant people with low indexes for receptivity and lucidity would indeed not fare well when measured against Rogers's (1995) attributes of innovation to determine adoption rate. To briefly revisit, these attributes are:

- ✓ *"Relative advantage*
- ✓ *Compatibility*
- ✓ *Complexity*
- ✓ *Trialability, and*
- ✓ *Observability"*

Attributes one, two and five relate to aspects such as receptivity, change management and motivation, but with regard to technological options for development, attributes three and four (complexity and trialability) need to be examined further.

7. Intricacy

Intricacy will be used to describe the degree to which users experience staff development opportunities. The first dimension of intricacy is what Rogers calls complexity. He describes this as:

> "… *the degree to which an innovation is perceived as difficult to understand and use*." (Rogers, 1995)

Other factors that would increase the perceived intricacy would include instructional design aspects like ease of operation, user-friendly interface, intuitivity of navigational design and the subsequent correspondence to expected visual literacy conventions.

This should not be confused with simplicity of design. While a visual interface like MS Windows may be easier from the perspective of the user, the programming complexity of this product is far more involved than its predecessor, commonly known as DOS. When the term intricacy is used, it is with reference to the experience of the end user.

Intricacy also includes Rogers's (1995) aspect of *trialability*, which he defines as:

> *"…the degree to which an innovation may be experimented with on a limited basis."* (Rogers, 1995)

This may include technological aspects such as additional software that the user needs to download, install or change settings for, as well as security aspects like passwords, fire walls and proxy settings. The complexity associated with software may scare users away and reduce the acceptance of the product.

Intricacy indicates the experience of the end user and as such can never be a fixed quantity, but rather a continuum of possibilities which links closely with Csikszentmihalyi's theory related to the balance between boredom, enjoyment and anxiety. Only when a balance between perceived challenge is matched by appropriate skills, will individuals find themselves in the state of enjoyment known as "flow".

> *"… the state in which people are so involved in an activity that nothing else seems to matter; the experience is so enjoyable that people will do it even at great cost, for the sheer sake of doing it."* (Csikszentmihalyi, 1990)

Different individuals will respond differently to various degrees of intricacy depending on their situation in respect to receptivity and lucidity.

8. Synthesis

In accordance with the suggestion to create visual devices and to "*play with metaphors, analogies, and concepts*" from Bogan and Biklen (1992) already mentioned, a combination of the thus far constructed elements can be made.

A metaphorical representation of the staff development playing field can be created by placing the receptivity cone and the lucidity pyramid on the flat surface of dependency. Both the cone and the pyramid may vary in size depending on the particular circumstances. Their position in relation to one another can also differ as various factors impact on them.

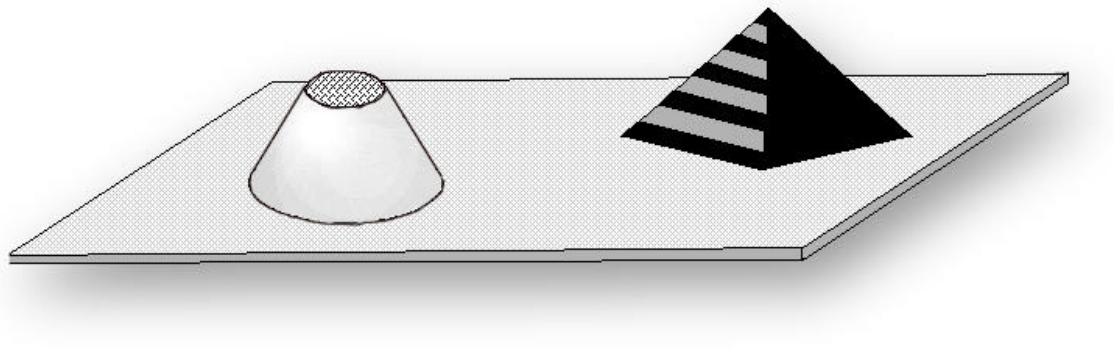


Figure 5.8: Interdependency surface

The position of the cone (receptivity) and pyramid (lucidity) will determine the angle at which the surface (dependency) will balance. In this way, the angle of the surface can be regarded as a 'pointer' to indicate the acceptable intricacy level of the type of interventions which may still be successful. In the Figures 5.9 through 5.11 some of these possibilities are described. In these figures, when the left hand side of the

surface points towards the lower side, the probability of an intervention with a lower technological intricacy would be a better solution. If the receptivity and lucidity are higher and hence move more to the right, the surface angle will point more towards the 'high' side on the Intricacy scale to show that the possibility of a more intricate solution could accordingly be greater.

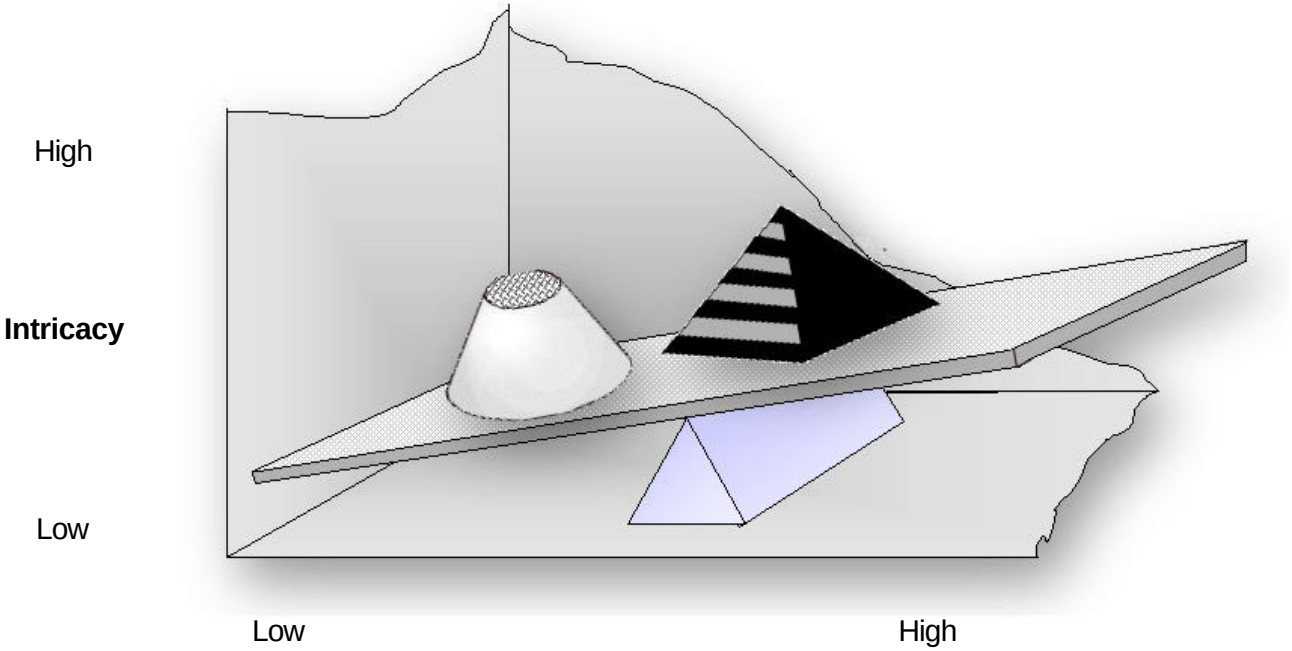


Figure 5.9: Technological susceptivity guide with a low intricacy indication

In Figure 5.9 the appearance of the receptivity cone closer to the left hand side, is indicative of low levels of receptivity. In other words, the people in this example seem not to experience direct relevance or need for the specific interaction and may well find themselves in the early stages of dealing with change. At the same time the lucidity index, as portrayed by the pyramid in a fairly neutral position, is not such that it would assist by making contextualised, clear information easily available. The result is a situation where developmental interventions or artefacts should best be sought in solutions with a lower level of perceived intricacy if users are expected to benefit from the options.

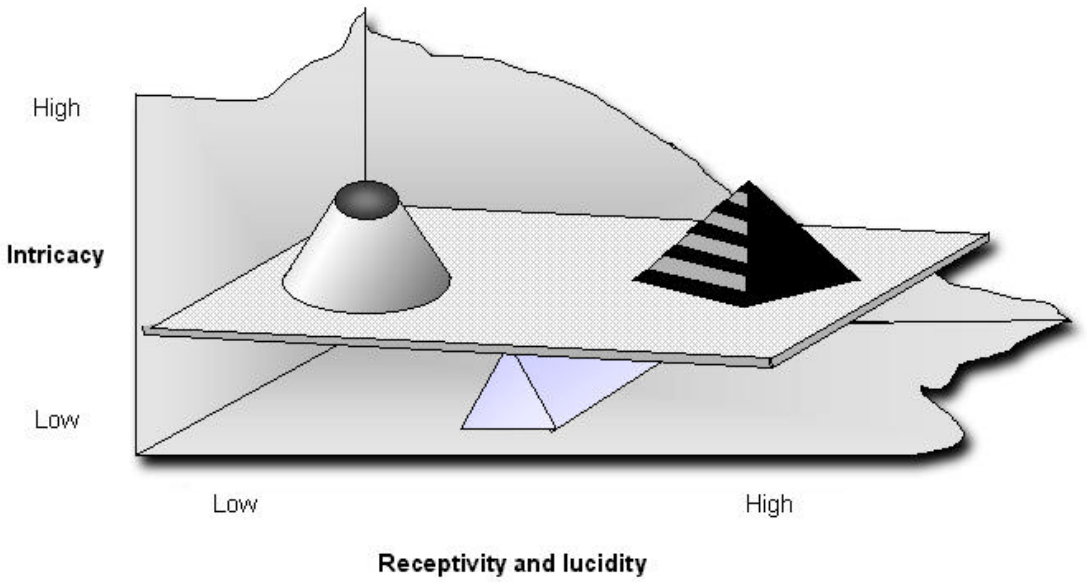


Figure 5.10: Technological susceptivity guide (intermediate intricacy indication)

The scenario depicted in Figure 5.10 is different in that the lucidity pyramid is found closer to the right hand side. Such a situation would occur when the three availability factors (APE) are favourable, the content and presentation is contextualised and offered in a clear fashion. This would not eliminate the unfavourable attitude of the target individual, but because of the preferable lucidity factors, the individual may be able to benefit from interventions to such an extent that the attitudinal shortcomings may not preclude use.

In a situation like this, the toleration of higher technological intricacy is based largely on the technical competence of the individual as displayed by the individual's ability which is incorporated in lucidity.

In Figure 5.11 the receptivity cone is also closer to the right hand side, indicating higher levels of receptivity within the target audience. This is clearly a more favourable position from which to operate since the aspects of competence, content and attitude are all sympathetically positioned. A situation tolerant of cognitive challenges may exist and hence more complicated approaches or devices may well succeed.

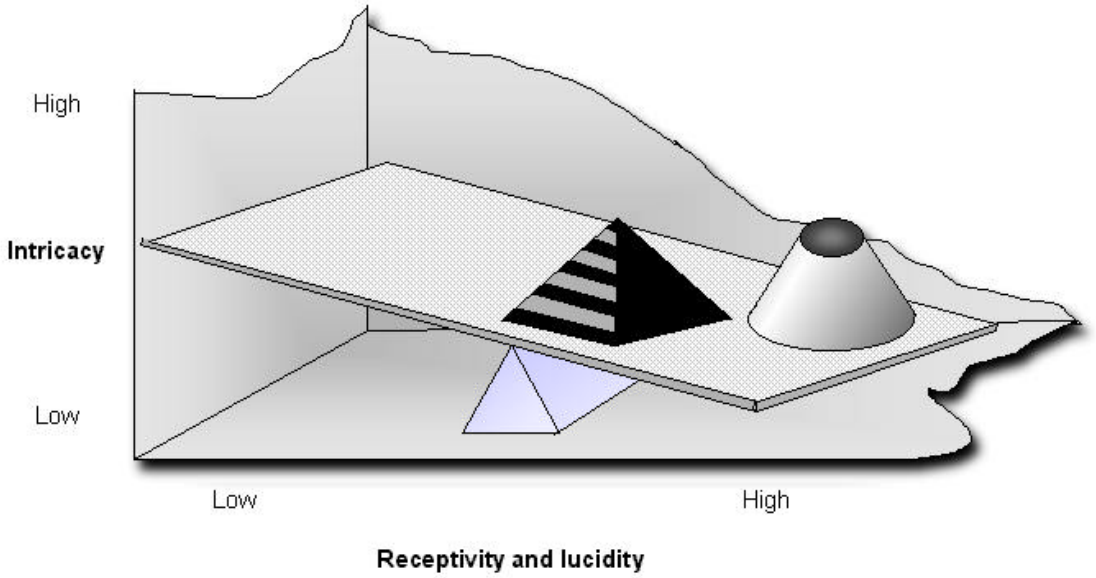


Figure 5.11: Technological susceptivity guide (higher intricacy indication)

Chapter Three provides the spectrum of interventions together with the particular benefits of the type of application. The selection can now be reconsidered according to factors representative of the human elements and not just for the sake of technology. Figure 5.9 through 5.11 indicate how the relevant receptivity and lucidity values can suggest the level of technological intricacy.

This chapter discusses the terms receptivity, lucidity, dependency and intricacy as factors influencing the selection of appropriate technology for staff development. The role of technology should not be considered to be a dominant or deciding factor in selecting staff development approaches. Instead a holistic view should be taken balancing lucidity, receptivity and dependency in a particular context. Only now can appropriate technological solution be selected.

Chapter Six provides tentative answers to the research questions posed in Chapter One, further alludes to the limitations of this study and indicates areas in need of further investigation.

Chapter 6

1. Introduction

This research set out to explore issues surrounding the following question:

> Which factors need to be considered in order to exploit the possibilities of information technology to optimise support to higher education staff during times of change in order to create a functional learning organisation?

No intervention can happen in isolation and therefore the conditions that surround the current higher education scene are elaborated on in order to provide context. This study proposed eVelopment as the utilisation of electronic options in order to develop staff.

2. Research Summary

2.1 Description of the research

This dissertation specifies contributing factors as well as the possibilities and constraints of alternative approaches to staff development. It also suggests crucial

factors for staff development that will co-determine the success of technological utilisation in staff development initiatives.

Each chapter is preceded by a visual organiser indicating the focus of that particular section with relation to the rest of the work and Table 1.3 in Chapter one gives a tabular indication of the structure of the research. A conceptual framework for the positioning of the study is given in Figure 1.

Earlier chapters indicate that change is a constant and accelerating factor in the lives of staff members. Change may not impact equally across the board, but factors influencing the institution, the lecturers or the learners themselves, in whatever way, should at least be considered as potentially important. Bryant (1999) advocates a "focus on stakeholders" as well as "a shift towards a shared vision". While this study focuses on higher education, education cannot be isolated from the influence of change in wider contexts.

Change factors influence not only the environment in which we work, but also the mindsets and attitudes of people. A learning organisation is not only an organisation that is developing, but also one that has developed the ability to learn from itself and from ‘within’ via peer involvement and continuous self evaluation and reflective practices.

At the same time we find the emergence of a technologically linked society with an increase in the number of users with access to e-mail and Internet facilities.

Information technologies need to be used in the right way in order to balance technological advances and competencies (Norman, 1993). What works elsewhere may not work within a South African context. This study explores local situations, investigates successes elsewhere and recommends a frame of reference from which to approach the issue of the use of technology in supporting and developing staff under these circumstances.

2.2 Methodology overview

The research is informed by contributions from various sources. Different approaches were used with different aims in mind. Each approach also provides information which draws attention to specific aspects.

2.2.1 Description of Instruments

- ✓ Literature review: This covered relevant legislation, journal articles, books and electronic documents available.
- ✓ Internet mailing lists: A number of mailing lists were identified and approached in order to obtain nominations for institutions or individuals with relevant experience. Resources suggestions were followed up
- ✓ E-mail postings: Identified individuals were contacted electronically. Correspondence with respondents were mostly also via e-mail.
- ✓ Web pages: Pages were consulted to give detail on the activities of interested parties.
- ✓ Questionnaires: Structured, yet open-ended questions were used.

Table 1.2 in Chapter one visually informs on the purposes of the various data collection methods.

3. Tentative answers to research questions

The context within which staff development occurs is not fixed. Neither are the answers provided below intended to be simplistic or absolute. The multitude of contributing factors imply that the main research question cannot be answered in isolation. Rather the answer is informed by a series of sub-questions and answers. The tentative answers provided below are derived from and informed by the context of this research.

3.1 Change

> *"Change is inevitable in a progressive country. Change is constant."* (Benjamin Disraeli, 1867)

3.1.1 What is change?

Change is a constant factor in the lives of academics. Changes do not only involve people but the process of change also affects the way information is perceived and reacted upon. The mind needs to evaluate and encode new information in order to determine potential impact. Within new circumstances individuals may find themselves in a position where it is necessary to realign with the new reality. New insights and understanding are generated and often produce new questions. Individuals are enriched by these changing cycles producing, for example, psychological growth.

Change should therefore not be viewed as merely peripheral and circumstantial alterations, but as a valuable tool to foster growth. Changes and the resulting intellectual drift are vital in terms of adaption, but often uncontrolled and involuntary. Intellectual drift is not a destination, but a constant or at least recurring cycle of definition, which leaves room within itself for some inevitable self-contradiction, redefinition and growth.

3.1.2 How do people react to change?

Different people have different capacities for dealing with change, but because people are most productive when they enjoy the activity they are busy with, it is beneficial to equip people to deal with change in a way that will still enable them to enjoy their task. The point where enjoyment is experienced is a dynamic one, and is dependent both on the skills level of the individual and on the challenge level of the activity at hand (Csikszentmihalyi, 1992). By implication change may leave staff members with a situation where the challenge is greater than the ability level. As a

result, many may be left with feelings of anxiety and loss of control, which in turn leads to greater demotivation (Malone, 1981).

The effect of experience, the consequential feelings, thought patterns and modified behaviour patters are best described in the table adaptation of Brock and Salerno's change cycle (Figure 3.6).

Unless processes and procedures are in place to equip staff to deal with change, they may react in order to avoid embarrassment or threat. Over time these issues become manifested in what Argyris (1990) calls organizational defence patterns.

3.1.3 What is the extent of change required from South Africans?

As part of the global world structure, all the changes common to the world at large, also apply to South Africans. Factors like HIV/AIDS, economic instability, declining resources, overpopulation and poverty all contribute to a tidal wave of changes.

South African became an international icon of political hope when peaceful change in government took place. The election was but the formalising of a series of changes that reached into the homes and hearts of South Africans.

The new government has passed legislation that is aimed at future benefit as well as the redress of past imbalances. A number of implications directly stemming from legislative directives are listed in Chapter Three. The very fact that there is no consensus on the rate of change or even the very changes themselves, indicates that change did not stop with the '94 elections and is not likely to stop in the future.

3.1.4 What are the effects of change on staff in higher education?

Factors around education, of which financial constraints are not the least, have forced stakeholders to take note of the changing situation. The learners themselves are much more outspoken about their demands on educational structures, and the combined result leaves a drastically altered reality where educators should function and therefore appropriate staff development is required to support the intellectual growth of knowledge workers.

Barnette, R. (2000). *Helpful Tips for Planning and Readiness for Online Instruction*: http://as1.ipfw. Edu/99tohe/presentations/barnette.htm.

Batt, R. (1999). *And the Winner is: Self-managing Teams*. [S.l] http://www.hrzone.com/articles/teams_tqm_or_taylorism.html

Baud, D. and McDonald, R. (1991). *Educational Development through Consultancy*. Guildford: SRHE.

Becker, H.S. (1993). *Theory:The Necessary Evil.* In Flinders, D.J. *Theory and Concepts in Qualitative Research*. New York: Teacher's College Press.

Bednarz, D. (1985). *Quantity and Quality in Evaluation Research: A Divergent View.* Evaluation and Programme Planning: Vol. 8, p289 – 306.

Behr, A.L. (1988). *Empirical research methods for the human sciences*. Durban: Butterworths.

Berge, Z.L. and Muilenburg, L.Y. (2000). B*arriers to Distance Education as Perceived by Managers and Administrators: Results of a survey*: In Melanie Clay (Ed.), Distance Learning Administration Annual 2000: http://www.gl.umbc.edu/~berge/man_admin.html.

While this study focuses on staff development, the changes also impact on academia at large and on students.

3.2 Staff support/development

> "Μμνεσο, τι καэ τэ μετατэτεσται καэ эπεσται τэ διορτοэντιэμοэο э эλεэτερэν эστιν."
>
> *(To change your mind and to follow him who sets you right is to be nonetheless the free agent that you were before)*
>
> Marcus Aurelius

3.2.1 What are the characteristics of successful staff development elsewhere?

Staff development is approached in various ways. Although departments responsible for staff development are called by a variety of names, these names have little value as indicators of exactly what happens with such departments.

Centres prefer a comprehensive approach to development in preference to exclusively following any specific model in their activities. Central offices that co-ordinate developmental activities are also common. A fair amount of similarity exists between core activities at different institutions. Voluntary participation in workshops and seminars appear to be the most popular developmental interventions (Table 4.12).

A number of elements and fundamental educational approaches are encouraged and combined into the eclectic approaches followed. These common recommendations and the people credited as intellectual property right holders are listed in Table 4.13.

3.2.2 What is the extent to which staff members need support?

Academic staff members are mostly appointed for their subject expertise and are not expected to have any teaching qualification. With the change to a more client oriented higher education system, the call for learning facilitation and lecturing competence in staff members is growing.

Realities such as lack of funding for full time study may force some learners to prefer distance education. Technology and especially the internet, make it possible for learners to study through lower contact options, but the need for instructional design and curriculation which fosters learning, still places a burden on lecturers to provide services for which they more often than not do not have formal qualifications.

While some staff support centres do provide assistance in activities which are more closely related to change management strategies or managerial skills than to education, the need for support is primarily educationally related.

All the staff members are not equally receptive to interventions from change agents. The detail description for receptivity is given in Chapter 5, section 2.

3.2.3 What are the dynamics between change and staff support?

Change is at the heart of staff development. The increased tempo of change seems to call for an increase in developmental activity and lifelong learning.

Different approaches to managing change exist. These should not be seen as contradictory or exclusive. They should rather be viewed as complementary, since people differ in their reactions to change.

3.3 Information technology

> *"Where is the Life we have lost in living?*
> *Where is the wisdom we have lost in knowledge?*
> *Where is the knowledge we have lost in information?"*
> (TS Elliot, 1934)

3.3.1 What are the possibilities and constraints of information technology as a vehicle for development and support?

Change agents generally seem to have a very sober outlook on the use of technology. While various options such as video and audio recordings have been

available, very few lasting changes have taken place in educational practice. Innovations and technology applications in themselves are not seen as crucial elements in higher education development today.

This does not imply that the value of technological systems, techniques and affordances are not appreciated or that no effort is invested in creating opportunities for faculty members to become familiar with new approaches. Normal distribution of the adoption of technological tools is evident amongst change agents.

Amongst the pioneers and early adaptors, a great deal of enthusiasm is evident and some departments run huge sections devoted to electronic teaching, but those who do venture into the realm of technology as a tool, do not all share the same perspective or priority allocation.

For the majority at the moment, technological opportunities are treated as options for student learning and are not pursued as staff development options.

Some practitioners use the enthusiasm for technology and changes in delivery to provide opportunities for raising educational awareness. At this stage, those who tend to use technology for developmental purposes only do so from the perspective of generating access and to disseminate information and resources available on line. *WebCT* and *Blackboard* are the only two commercial platforms suggested, but many institutions prefer to develop their own approaches. Further research is required into why such institutions elect to *re-invent the wheel*.

3.3.2 Which changes need to be made to staff support and development practice in order to exploit the possibilities of information technology?

Current staff development practice does not provide an ideal mechanism for creating a functional learning organisation. Where non-physical contact facilitation of learning is concerned the effects of personality types and learning preferences plays a bigger than normal role. In order to accommodate these differences the answer is unlikely to ever imply a technology only solution, but rather a compendium of methodologies through which those who do posses the necessary competence and self-motivation can benefit, while those with different profiles are not discriminated against. Merely

switching to technological delivery as a vehicle for staff development will not solve such problems.

This study does however indicate a number of factors that need to be taken into consideration when considering successful technological staff development. These factors are:

- ✓ Receptivity;
- ✓ Dependency;
- ✓ Lucidity; and
- ✓ Perceived intricacy.

They are briefly described in Table 6.1.

Factor	Contributing Element	Issues
Receptivity	Origin	✓ Locus of apparent need
	Reaction to change	✓ Impact of change ✓ Intellectual drift ✓ Perceptions of insecurity
Lucidity	Availability	✓ **A**bility of the individual to utilise opportunities ✓ **P**ractical accessibility of the information ✓ **E**xistence of applicable information
	Clarity	✓ Linguistic complexity ✓ Esoteric terminology ✓ Layout ✓ Presentation ✓ Visual literacy
	Context	✓ Accommodation of local issues ✓ Adaption of theorems
Dependency	Approach preference	✓ Social learning style ✓ Delivery mechanism ✓ Mode of interaction ✓ Temporal dependence
Perceived intricacy	Compatibility	✓ Technical issues ✓ Intuitivity
	Complexity	✓ Ease of operation ✓ Instructional design
	Trialability	✓ Drivers to download ✓ Change in settings ✓ Security issues

Table 6.1: Factors to contend with in order for eVelopment to succeed

The fact that information is available does not guarantee that the intended meaning will be transferred. Change agents need to take note of these factors, provide alternatives and accommodate individual differences. The challenge is to find a way to serve as many of the clientele as possible in a way as close to their own particular situational profile as possible. Technological possibilities can prove helpful in this regard.

4. Conclusion

This research argues that there has been an increase in both the scope and the rate of change in the higher education arena in which the need for staff development/support should be in constant demand. Learning organisations need to be grown since current approaches will not suffice and existing attitudes and learning cultures do not allow for self-development. In a majority of cases the reasons cited for failure of current methodologies can be related to time (and hence budget) constraints.

Technological solutions can help with just-in-time performance support options, but also in terms of more comprehensive staff development interventions. However, the unique nature of individuals means that different people have different reactions to both their changing environments and their particular preference in terms of developmental approach.

Not completely unlike traditional developmental approaches, corporate and social norms in terms of mutual accommodation and acceptable behaviour will not suffice to persuade staff members to participate and utilise developmental opportunities. A number of factors need to be specifically catered for in order to create an environment in which individuals will feel sufficiently secure to both utilise the opportunity and implement the new strategies and methods acquired.

No single solution will satisfy everybody, nor do simplistic answers or options exist. Change agents need to account for individual preferences and context specific implications in terms of lucidity, receptivity and dependence. Based on facts thus gathered, alternatives can be selected from the technological spectrum to coincide with the appropriate levels of technological intricacy.

In designing developmental opportunities, a variation of approaches will have to be provided for. While this may seem like unnecessary duplication, the availability of alternatives will accommodate staff members in methods better suited to their needs and possibly during times more appropriate to both their schedules and the instance of their experiencing the need. In this way developmental opportunities will not only enjoy better utilisation, but positive experiences will add to a growing learning organisation culture.

5. Recommendations

The following issues emerge from this research as recommendations. They are not given in any particular order or preference.

5.1 Understand your clients.

The needs of clients relate closely to their expectations. A better understanding of factors directly impacting on the lives of staff will enable change agents to cater for those needs. Not only will this provide better service to staff members, but it will also enable change agents to pro-actively identify and contextualise possible solutions to current problem areas.

5.2 Augment existing resources

In the ever widening spectrum of global participation, staff members attempt to obtain solutions to their problems across institutional and international boundaries. They are however stressed for time and as a result do not always take the time to contextualise options that emerge. The consequential misaligned selection of methodologies or inappropriate use of technological possibilities may in turn lead them to unverified conclusions regarding the actual applicational value of certain approaches. Change agents should identify hindrances and/or possible work-arounds in order to sensitise staff to preferred local variations or necessary adaptations.

5.3 Identify similar institutions

Where at all possible, resources should be shared. Technology has made specific progress which makes communication, co-operation and sharing of documentation

and other material not only possible, but also effortless. This is not only to lighten the materials development load, but will address issues of lucidity as it would initiate exploration in terms of specific meaning and relevance.

5.4 Lead by example

Unless change agents actively explore, experiment and utilise technological options, the late majority may interpret their actions as lip service and continue in trusted old ways. On the other hand, staff who experience positive learning facilitation during developmental interventions, may consider following suit.

5.5 Accommodate change by addressing change

Not all members of staff reflect on their own reactions to change. They need to be made aware of the possible instinctive reactions to changing environments and consciously and pro-actively select change approaches. Staff members still need to learn that it is acceptable to experience particular emotions and reactions to changes in their lives, but they also need to acquire the necessary skills to deal with them positively.

5.6 Explore technological spectrum – not only forefront

The heightened awareness and media coverage of the latest developments in technology sometimes create the impression that technological innovations are but passing fads. A crucial balance must be kept between exploration and experimentation with latest technology and the adoption and propagation of proven advances and new approaches.

5.7 Optimise

Utilise the strengths of technology to enhance existing offerings and developmental interventions. In doing so, the strengths of both methodologies can be optimised on. By for instance creating e-mail distribution lists for people who have registered for developmental workshops, participants can be supplied with preparatory reading and later be supported during implementation of newly acquired skills to experience the co-operative structure of the network of fellow explorers as a safety net from which to operate. Sharing expectations, ideas and challenges can both motivate the stronger

parties with increased self-confidence, and sooth more tentative staff members with the knowledge that they are not left alone to generate answers.

6. Value of the research

On a personal level, this research resulted in a large amount of tacit knowledge which impacts on multiple aspects of prior learning and knowledge construction. While not possible to capture into an all-embracing document and while it holds little value to parties not directly involved with the researcher, this aspect should be mentioned in the interest of honesty and comprehensiveness.

To readers, this research may hold the following value:

- ✓ Awareness and analysis of factors surrounding higher education and the resulting impact of those changes on the lives of academics.
- ✓ Sensitivity for the need to support staff during times of change.
- ✓ Exposition of elements crucial to current best practice ways of supporting and developing academic staff.
- ✓ Appreciation for the factors affecting staff development.
- ✓ Recognition for the need to contextualise staff development solutions.

7. Limitations of the research

The research could have been more valuable and more representative of the field were it not for the following factors:

- ✓ Many of the individuals that were identified as knowledgeable, did not respond to the request for information.
- ✓ One individual did the research and as a result, a long time has elapsed since the beginning of the research. In the meantime, new valuable papers may have been produced which have not been considered in the scope of this study.

- ✓ No instance could be found where a comprehensive eVelopment implementation is in operation. As a result the expected reaction of staff members are well founded hypothesis, but not tested as yet.

- ✓ The South African context is unique in many ways. In an attempt to obtain state of the art impressions and options, the focus of the study may be too international and not sufficiently localised.

8. Recommendations for further research

The lyrics of the song claims "…there are more questions than answers". This research has exposed some of the complexities of eVelopment. While this is the staff development path of the future, there are a number of issues that still need further investigation:

- ✓ The range of tools and approaches that will cater for the spectrum of individual needs, must be further explored, implemented and tested.

- ✓ A management system must be developed that is both economically viable and at the same time sensitive to the developmental needs of staff in a rapidly changing academic environment.

- ✓ Methods must be explored by which members of a learning organisation can be made sufficiently aware of their duty towards active participation in the creation of a learning organisation.

- ✓ An international consortium of staff developers could unite in order to collectively identify, design and develop systems that could be used by staff at these institutions to better equip themselves. The system within which such co-operation could function fast and reliably enough to be feasible, needs to be investigated.

- ✓ Methodologies to reward staff members for educational efforts and contributions that will aid learning can assist in raising awareness with staff of the need for educational development. Existing methods of this kind do not prove sufficient and new ways must be found.

9. Finale

Yesterday's solution will not solve today's problems and the solutions of today must be sufficient to prepare academics to prepare learners for tomorrow. eVelopment has the potential to provide the answers, but a blind rush to adopt technological delivery of content will not work automatically.

The specific circumstance and the intricate balance between lucidity, dependency and receptivity need to be defined and specifically addressed in order for an eVelopment solution to succeed. Staff developers and change agents need to be aware of these factors and design accordingly.

Unless these challenges to staff development opportunities are treated with sufficient respect, the negative experiences of development staff that do not find instant gratification from quick fix approaches may cause them to elect not to utilise the great potential that is available. In doing so institutions of higher education may find staff unable to cope with the rate of change expected of them.

…oOo…