STUDENTS PERCEPTIONS TOWARDS USING THE INTERNET FOR LEARNING IN UNIVERSITI MALAYSIA SARAWAK (UNIMAS)

KUEK MIN KHOON

KOTA SAMARAHAN

1999
STUDENTS’ PERCEPTIONS TOWARDS USING THE INTERNET FOR LEARNING IN UNIVERSITI MALAYSIA SARAWAK (UNIMAS)

by

KUEK MIN KHOON

This project is submitted in partial fulfillment of the requirement to obtain a Bachelor of Science (Human Resource Development) from Faculty of Cognitive Science and Human Development, Universiti Malaysia Sarawak.
The project entitled Students' Perceptions Towards Using The Internet for Learning In Universiti Malaysia Sarawak (UNIMAS) was prepared by Kuek Min Khoon and submitted to the Faculty of Cognitive Science and Human Development in partial fulfillment of the requirement to obtain a Bachelor of Science (Human Resource Development).

Received for examination by

[Signature]
(Mr. Hong Kian Sam)
Date: 4 March 1999
Acknowledgements

First of all, I would like to extend my appreciation to Mr. Hong Kian Sam for his advice and guidance in my research. Special thanks also to the Faculty of Cognitive Science and Human Development, Universiti Malaysia Sarawak, for giving me the opportunity to do this research. I would also like to dedicate my thanks to Mr. Ling Kiong Chai, Mr. Chong Kiong Kwong, and their friends, for helping in distributing the questionnaires of this research. Last but not the least, I also wish to express heartfelt gratitude to my dearest parents, brother, sister, and friends especially SJ Long for their support and warm regards.

Kuek Min Khoon
Human Resource Development
Faculty of Cognitive Science and Human Development
Universiti Malaysia Sarawak.
TABLE OF CONTENTS

Acknowledgements
Table of Contents
List of Table
List of Figure
Abstract
Abstrak

CHAPTER 1: INTRODUCTION
Introduction
Background of the Study
Statement of the Problem
Objectives of the Study
   General Objective
   Specific Objectives
Conceptual Framework
Null Hypotheses
Significance of the Study
Definition of Terms
   Perception
   Students
   Internet
   Learning
   Knowledge
   Learning Environments
   Behaviour
Limitation of the Study

CHAPTER 2: LITERATURE REVIEW
Perception
   Factor Effecting Perception
      Motivation
      Attitudes and Values
      Personality Traits
Learning
   Contexts
   Goals
   Methods
   Kinds of learners
   Types of learning
History of the Internet
The Internet
Using the Internet for Learning
Education and Community

<table>
<thead>
<tr>
<th>Acknowledgements</th>
<th>Table of Contents</th>
<th>List of Table</th>
<th>List of Figure</th>
<th>Abstract</th>
<th>Abstrak</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 3: METHODOLOGY
Introduction 23
Research Design 23
Location of the Research 23
Population and Sampling 23
Instrumentation 24
Research Instrument 24
Pilot Test 24
Final Instrument 25
Data Collection 25
Data Analysis 25

CHAPTER 4: FINDINGS AND DISCUSSIONS
Respondents' Demographic Characteristics 28
Age 28
Sex 29
Race 29
Faculty 29
Present Level of CGPA 30
Education Level Before Entering UNIMAS 30
Level of Perception Towards Learning Using the Internet 31
Hypotheses Test Using Pearson Correlation 33
$H_0:1$: There is no significant relationship between knowledge on basic Internet principles with students' perceptions towards using the Internet for learning 33
$H_0:2$: There is no significant relationship between learning environments with students' perceptions towards using the Internet for learning 33
$H_0:3$: There is no significant relationship between behaviour with students' perceptions towards using the Internet for learning 33

Hypotheses Test Using Independent Samples t-test 34
$H_{0A1}$: There is no significant difference in students' perceptions towards using the Internet for learning purposes based on age 34
$H_{0A2}$: There is no significant difference in students' towards using the Internet for learning purposes based on sex 34

Hypotheses Test Using One-way Analysis of Variance (ANOVA) 35
$H_{0A3}$: There is no significant difference in students' perceptions towards using the Internet for learning purposes based on race 35
$H_{0A4}$: There is no significant difference in students' towards using the Internet for learning purposes based on faculty 35
$H_{0A5}$: There is no significant difference in students' towards using the Internet for learning purposes based on present level of CGPA 35
Hₐₙ: There is no significant difference in students' perceptions towards using the Internet for learning purposes based on education level before entering UNIMAS

Discussion 38
Summary of the Results in Null hypotheses 40

CHAPTER 5: SUMMARY, CONCLUSION AND RECOMMENDATIONS
Summary 41
Conclusion 43
Recommendations 43

BIBLIOGRAPHY 44
READING 47
APPENDIX A 48
List of Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Title</th>
<th>Page Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Distribution of respondents by faculty</td>
<td>24</td>
</tr>
<tr>
<td>3.2</td>
<td>Approximate Translations of Value of the Correlation Coefficient</td>
<td>26</td>
</tr>
<tr>
<td>4.1</td>
<td>Distribution of respondents by age</td>
<td>28</td>
</tr>
<tr>
<td>4.2</td>
<td>Distribution of respondents by sex</td>
<td>29</td>
</tr>
<tr>
<td>4.3</td>
<td>Distribution of respondents by race</td>
<td>29</td>
</tr>
<tr>
<td>4.4</td>
<td>Distribution of respondents by faculty</td>
<td>30</td>
</tr>
<tr>
<td>4.5</td>
<td>Distribution of respondents by present level of CGPA</td>
<td>30</td>
</tr>
<tr>
<td>4.6</td>
<td>Distribution of respondents by education level before entering UNIMAS</td>
<td>31</td>
</tr>
<tr>
<td>4.7</td>
<td>Scores for Level of Perceptions</td>
<td>32</td>
</tr>
<tr>
<td>4.8</td>
<td>Perceptions towards learning using the Internet</td>
<td>32</td>
</tr>
<tr>
<td>4.9</td>
<td>Correlation between knowledge on basic Internet principles and perceptions towards learning through the Internet</td>
<td>33</td>
</tr>
<tr>
<td>4.10</td>
<td>Correlation between learning environments and perceptions towards learning using the Internet</td>
<td>33</td>
</tr>
<tr>
<td>4.11</td>
<td>Correlation between behaviour and perceptions towards learning using the Internet</td>
<td>34</td>
</tr>
<tr>
<td>4.12</td>
<td>Independent samples t-test for perceptions towards learning using the Internet based on age</td>
<td>35</td>
</tr>
<tr>
<td>4.13</td>
<td>Independent samples t-test for perceptions towards learning using the Internet based on sex</td>
<td>35</td>
</tr>
<tr>
<td>4.14</td>
<td>One-way ANOVA for perceptions towards learning using the Internet based on race</td>
<td>36</td>
</tr>
<tr>
<td>4.15</td>
<td>One-way ANOVA for perceptions towards learning using the Internet based on faculty</td>
<td>36</td>
</tr>
<tr>
<td>4.16</td>
<td>One-way ANOVA for perceptions towards learning using the Internet based on present level of CGPA</td>
<td>37</td>
</tr>
<tr>
<td>4.17</td>
<td>One-way ANOVA for perception towards learning using the Internet based on education level before entering UNIMAS</td>
<td>38</td>
</tr>
<tr>
<td>4.18</td>
<td>Results of the Null Hypotheses</td>
<td>40</td>
</tr>
<tr>
<td>Figure</td>
<td>Title</td>
<td>Page Number</td>
</tr>
<tr>
<td>--------</td>
<td>----------------------------------------------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>4.1</td>
<td>The Conceptual Framework of Students' Perceptions Towards Using the Internet for Learning in UNIMAS</td>
<td>4</td>
</tr>
<tr>
<td>4.1</td>
<td>Transformation of Statement Choices into Level of Perceptions</td>
<td>31</td>
</tr>
</tbody>
</table>
Abstract

STUDENTS' PERCEPTIONS TOWARDS USING THE INTERNET FOR LEARNING IN UNIVERSITI MALAYSIA SARAWAK (UNIMAS)

Kuek Min Khoon

The purpose of this study is to identify students' perceptions towards learning using the Internet and factors that affect their perception. The objectives of the research are (a) identify students' perceptions towards using the Internet for learning, (b) determine the relationship between students' knowledge on basic Internet principles and their perceptions towards using the Internet for learning, (c) determine the relationship between students' learning environments and their perceptions towards using the Internet for learning, (d) determine the relationship between students' behaviour and their perceptions towards using the Internet for learning, and (e) determine the differences in perceptions of the students towards using the Internet for learning purposes based on the selected demographic characteristics.

A total of 88 respondents from 5 science based faculties in Universiti Malaysia Sarawak (UNIMAS) were chosen as sample for this study. A questionnaire was used to measure the perceptions of respondents towards learning using the Internet. Descriptive statistic such as frequency, percentage, mean was used to describe the demographic characteristics of respondents. There were 3 main hypotheses and 6 sub-hypotheses in this study. These hypotheses were measured using statistical analysis such as Pearson Product Moment Correlation Coefficient, Independent Samples t-test and One-way Analysis of Variance (ANOVA).

The findings showed that students' perceptions towards using the Internet for learning were high. 87.5% of the respondents have positive perceptions towards using the Internet for learning. Null hypotheses test showed the following results: (a) there was a significant relationship between students' knowledge on basic Internet principles and perceptions towards using the Internet for learning, (b) there was a significant relationship between students' learning environments and perceptions towards using the Internet for learning, (c) there was a significant relationship between students' behaviour and perceptions towards using the Internet for learning, and (d) there were significant differences in perception of the students towards using the Internet for learning purposes based on age and faculty. However, there were no significant differences in perceptions based on sex, race, present level of CGPA and education level before entering UNIMAS.
Kajian ini bertujuan untuk mengenal-pasti persepsi pelajar terhadap pembelajaran menggunakan Internet dan faktor-faktor yang mempengaruhi persepsi mereka. Objektif kajian ini adalah (a) mengenal-pasti persepsi pelajar terhadap penggunaan Internet dalam pembelajaran, (b) menentukan perkaikan di antara pengetahuan pelajar dalam prinsip Internet asas dan persepsi mereka terhadap penggunaan Internet dalam pembelajaran, (c) menentukan perkaikan di antara persekitaran pembelajaran pelajar dan persepsi mereka terhadap penggunaan Internet dalam pembelajaran, (d) menentukan perkaikan di antara tingkah-laku pelajar dan persepsi mereka terhadap penggunaan Internet dalam pembelajaran, dan (e) menentukan perbezaan di dalam persepsi pelajar-pelajar terhadap penggunaan Internet dalam pembelajaran berdasarkan ciri-ciri demografi yang terpilih.


Dapatan kajian menunjukkan persepsi pelajar-pelajar terhadap penggunaan Internet dalam pembelajaran adalah tinggi. 87.5% responden mempunyai persepsi positif terhadap penggunaan Internet dalam pembelajaran. Ujian hipotesis nol menunjukkan keputusan berikut: (a) terdapat perkaikan yang signifikan di antara pengetahuan pelajar dalam prinsip Internet asas dan persepsi mereka terhadap penggunaan Internet dalam pembelajaran, (b) terdapat perkaikan yang signifikan di antara persekitaran pembelajaran pelajar dan persepsi mereka terhadap penggunaan Internet dalam pembelajaran, (c) terdapat perkaikan yang signifikan di antara tingkah-laku pelajar dan persepsi mereka terhadap penggunaan Internet dalam pembelajaran, dan (d) terdapat perbezaan yang signifikan di dalam persepsi pelajar-pelajar terhadap penggunaan Internet dengan tujuan pembelajaran berdasarkan umur dan fakulti. Bagaimanapun, tidak terdapat perbezaan yang signifikan dalam persepsi para pelajar berasaskan jantina, bangsa, peringkat CGPA terkini dan peringkat pendidikan sebelum memasuki UNIMAS.
CHAPTER 1
INTRODUCTION

Introduction

Computer networks have been around for over thirty years, and in that time they have gone from being a laboratory curiosity to a tool used by millions of people every day. Primarily a few thousand-computer scientists to access computers, share computer files, and send electronic mail used the first network, ARPANET. Today, scientists, engineers, teachers, students, doctors, and businessmen, rely on the Internet and other computer network to communicate with their colleagues, receive electronic journals, access bulletin boards, log onto databases, and use remote computers and other equipment.

The Internet: Sometimes called The Net, is a connection of computers worldwide. Anyone can connect to the Internet. The Internet is a collection of small networks of computers that talk to each other using certain communication protocols. These protocols define how the Internet works and how we use it. Another way to view the Internet is to think of it as a place to be or somewhere to go. You frequently hear the Internet referred to as the information superhighway. We don't view the Internet as a highway but as a community of people with many and varied interests who exist somewhere in the world and want to connect to others and access the vast resources of the Internet (Cafolla, Kauffman & Knee, 1997).

In recent years, the visibility of the Internet has increased tremendously. Large numbers of users may have benefit from the Internet without realising it. Moreover, the Internet is now truly a global communication medium. Without a doubt, the Internet is the most extensive network on the planet. It is uniquely suited for embracing other networks; no other network or network technology is growing as fast. Internet also known as Information Provider and can find information of interest.

Learning is the process of acquiring new skills, attitudes, knowledge and improving abilities. Learning, like daily living, increases our knowledge and understanding of the people and things that surround us. The use of a computer network, and in particular the Internet, for teaching and learning purposes has received a lot of attention over recent years. The Internet consists of a fairly mature resource for support of the learning process, that is the use of the World Wide Web (WWW) as an aid to learning.

The World Wide Web (WWW) has only been in existence for a few years since the hypertext transfer protocol (http) was first used. It has grown considerably since its introduction and is now one of the most widely used applications on the Internet,
With millions of pages of information inter-linked to form a worldwide resource of information.

The WWW is a network of sites throughout the world that are related to each other through links written into their documents. It's like a large, ever-expanding book with a powerful index. When you use the web, you access a document called a page in a book or document. The main difference is that in this page you can click on or highlight section and be connected to more detailed or relevant material about that section of the document. Most importantly, the documents that are linked to the page you start at can exist on any other computer in the world that is attached to the web, and each of these documents can contain links within it to more documents on still another computer (Godin, 1995).

While accurate statistics are almost impossible to get regarding the Internet and the web, certain approximations that have some validity can provide a picture of the scope of the Internet and the World Wide Web. One thing is certain. The Internet is huge. The number of web sites is growing exponentially and the number of people using the Internet is doubling every year. Here are some numbers for those statistically inclined.

- Internet traffic is doubling every 100 days.
- There are more than 7 million home pages on the World Wide Web.
- Number of web pages soared to 300-325 million in March of 1998, up from 200 million in November 1997.
- The number of Internet users soared to more than 100 million in 1997.

The above statistics were obtained from a site on the Internet. (IDC, World Wide Web address: http://www.flash.net/~ambrose/stats.htm)

The use of the Internet has been growing steadily in the Universiti Malaysia Sarawak (UNIMAS) with a number of Web Servers providing a range of information for students and prospective students who have access to the Internet. What has lacking is the educational potential of the Web as a directed learning resource for individual modules and individual students.

Background Of The Study

This study aimed to examine the perceptions of UNIMAS's students towards learning using the Internet. This research will also identify the criteria and factors that influence student's choice of using the Internet for their learning purposes.

Universiti Malaysia Sarawak (UNIMAS), is the eighth university in Malaysia. The Prime Minister, Dato' Seri Dr Mahathir Mohamad, officially opened it on 31st August 1993. UNIMAS is located at Kota Samarahan, which is fast emerging as
the new commercial and administrative hub of Sarawak. The existence of UNIMAS is expected to bring robust development through creation of new employment opportunities and a larger population base to the district, which is currently economically dependent on agriculture. Samarahan is growing into a tranquil university township in comparison with the bustling city of Kuching. At present, the population of UNIMAS is about 3,000 students and by the year 2000, the expected student population will be about 10,000 students.

Statement of The Problem

This study aimed to identify students’ perceptions towards using the Internet for learning purposes. Some of the students seldom use Internet for educational purposes. They just use the Internet to check their E-mail and for chatting.

Demographics differences such as age, sex, race, faculty, present level of Cumulative Grade Points Average (CGPA), and level of education before entering UNIMAS may also cause differences in students’ perceptions towards using the Internet for learning purposes.

Relationships between knowledge on basic Internet principles, learning environments, behaviour and perceptions towards using the Internet for learning purposes and students’ perceptions towards using the Internet for learning purposes was also investigated.

Objectives of The Study

General Objective

The main purpose of this study was to identify students’ perceptions towards using the Internet for learning purposes and factors that affected their perception.

Specific Objectives

Specifically, the objectives of this study were to determine.
(a) students’ perceptions towards using the Internet for learning.
(b) the relationship between knowledge on basic Internet principles and students’ perceptions towards using the Internet for learning.
(c) the relationship between learning environments and students’ perceptions towards using the Internet for learning.
(d) the relationship between behaviour and students' perceptions towards using the Internet for learning.
(e) the differences in the perceptions of students towards using the Internet for learning purposes based on the selected demographic characteristics.

**Conceptual Framework**

The conceptual framework for the research based on the research objectives and literature review is shown in Figure 1.1.

**Independent Variable**

- Demographic Characteristics
- Learning Environments
- Knowledge on basic Internet Principles
- Behaviour

**Dependent Variable**

- Students' Perceptions towards learning using the Internet

**Figure 1.1** The Conceptual Framework of Students' Perceptions Towards Using the Internet for Learning in UNIMAS

**Null Hypotheses**

Based on the research objectives, the following null hypotheses were formulated.

- $H_{o1}$: There is no significant relationship between knowledge on basic Internet principles with students' perceptions towards using the Internet for learning.
- $H_{o2}$: There is no significant relationship between learning environments with students' perceptions towards using the Internet for learning.
- $H_{o3}$: There is no significant relationship between behaviour with students' perceptions towards using the Internet for learning.
- $H_{o4}$: There is no significant difference in students' perceptions towards using the Internet for learning purposes based on the selected demographic characteristics.
Hypothesis $H_0$ consisted of six sub-hypotheses as follows:

- $H_{0.1}$: There is no significant difference in students' perceptions towards using the Internet for learning purposes based on age.
- $H_{0.2}$: There is no significant difference in students' perceptions towards using the Internet for learning purposes based on sex.
- $H_{0.3}$: There is no significant difference in students' perceptions towards using the Internet for learning purposes based on race.
- $H_{0.4}$: There is no significant difference in students' perceptions towards using the Internet for learning purposes based on Faculty.
- $H_{0.5}$: There is no significant difference in students' perceptions towards using the Internet for learning purposes based on the present level of Cumulative Grade Points Average (CGPA).
- $H_{0.6}$: There is no significant difference in students' perceptions towards using the Internet for learning purposes based on the education level before entering UNIMAS.

**Significance of the study**

Students in universities, colleges, and schools should be aware of the existence of Internet technology. The Internet expands classroom resource dramatically by making many resources from all over the world available to students. It brings information, data, image and even computer software that are difficult to find without Internet access into the classroom. It is important for students to have the knowledge on basic Internet principles because it brings benefits in their learning activities. The students should use knowledge of the Internet in the right way to gain informative information and resources.

Learning environment also plays an important role for students to use the Internet for learning purposes. Comfortable learning environment with sufficient Internet facilities will increase the interest of students in using the Internet for learning purposes.

Internet technology must be utilised to enable students in University enhance their knowledge and skills.
Definition of Terms

Perception

Perception can be defined as a process of creating patterns from raw sensory information (Morris, 1990). Perception will look at how someone perceives patterns, distance and movements, and how they are able to identify an object despite changing or even contradictory information.

Students

Students in this study refers to students in UNIMAS from the Faculty of Engineering, Faculty of Medicine and Health Sciences, Programme Cognitive Science in the Faculty of Cognitive Sciences and Human Development, Faculty of Information Technology, and Faculty of Resource Science and Technology.

Internet

The Internet is a giant network of computers located all over the world that communicate with each other. Internet also resembles a traditional library because it has tools that aid the search for information. The Internet has services that help someone to find the information electronically.

Learning

Learning is usually defined as the process that leads to a relatively permanent change in behaviour or the potential to behave which develop through experience (Morris, 1990). Most people think of learning as something they do at school, college or university which involves memory, practice, training, developing skills and experience than this. Learning occurs countless times every day for each of us, and is the main way in which we acquire behaviour in every aspect of our lives. Learning plays a major role in determining the sort of people we are, and influencing the way we will develop in the future.

Knowledge

Facts, information, understanding and skills that a person has acquired through experience or education (Hornby, 1995). The dominant paradigm of gaining knowledge is through the process of learning. When somebody learn about something new, he or she will obtain knowledge that are useful for them.

Learning Environments

Learning environments can be defined as the conditions, circumstances that affect a person’s life in the process of gaining knowledge and experiences. Human beings
are essentially a plastic organism shaped by their environment. They learn what they are reinforced to learn (Skinner, 1978).

**Behaviour**

Behaviour is anything that a person says or does (Martin & Pear, 1992). Some commonly used synonyms include activity, action, performance, response, and reaction. Motivation and creativity refer to the kinds of behaviour in which a person's likely to engage under certain circumstances. The highly motivated student spends a great deal of time studying. The creative individual frequently emits behaviours that are unusual but at the same time, have desirable effects.

**Limitation of the study**

The main limitation of this study is the sample used. Only first-year students in science-based faculties were chosen as the sample in this study.
CHAPTER 2
LITERATURE REVIEW

This chapter presents the review of related literature. Among the aspects covered in this chapter were perception, factors effecting perception, learning, history of the Internet, the Internet, and using the Internet for learning, education and community.

Perception

Perception is the process by which an organism becomes aware about the state of the environment and the states of its own internal functions. Human interacts with the environment through the various senses, of which generally consider sight, hearing, taste, touch, smell, pain and proprioception (sense of body and limb position). Perception is the transformation of the physical world into mental images. The basic fact of visual perception is that we see things. Thus, we translate retinal images and sound waves into individually meaningful and stable items (Burns & Dobson, 1984).

Perception changes the stimulation from raw sense data to individually meaningful information. Perception is sensation plus inference and interpretation. Helmholtz (1866) called this unconscious inference, implying that perception is a function of both the stimulation from the sensed object and the knowledge, inferences and expectations and appraisals we hold regarding the sensed object.

Factors Effecting Perception

In this section, we are concerned with the role of motivation, attitudes and values, and personality traits on perception.

Motivation

A considerable number of studies reveal that motives and needs can act as perceptual determinants. There have been several experiments in which subjects are derived of food until hungry and then tested for their tendency to perceive food relevant objects in perceptual test fields. Sanford (1936) showed that hungry subjects completed word stems in such a way to make food relevant words than did non-hungry subjects. For example, the word stem ME was more likely to be completed as MEAT or MEAL by hungry subjects than by non-hungry.
Schafer and Murphy (1943) illustrate how motive satisfaction influences perception. The experimenters devised drawings, in such a way that either half of the drawing could be seen as a face. The faces were then cut out so that either could be presented separately. A training series was initiated in which members of one group of children were rewarded with a coin every time they have shown one face and punished by losing money every time they have shown the alternate face. The face was then combined and presented tachistoscopically at exposure time to prevent the perceptual alternation which usually occurs if ambiguous figures are fixated for relatively long interval. A significant difference was found in the direction in which theory would predict, the rewarded face was seen, the punished one was unnoticed.

**Attitudes and Values**

The experiment by Bruner and Goodman (1947) is something of a classic in this area. They selected two groups of 10-year-old children, one group from rich home and another from poor home. The subjects’ task was that of estimating the physical size of coins ranging from 1 to 50 cents. Estimations were made by the manipulation of a knob which in turn controlled a diaphragm regulating the size of a circular patch of light on a ground-glass screen. The actual sizes of the coins were the standards, and the averages of the subjects’ light settings were compared to the standards in order to obtain a measure of the magnitude of under or overestimation. A control group made similar estimations using cardboard discs as the standard stimuli. The poor children overestimated the size of every coin to a greater degree than the rich children, though all subjects tended to overestimate coins, especially the 5, 10 and 25 cent denominations. There was less overestimation, incidentally, when the coins were absent and the estimations were made from memory.

In general, valued objects or objects which have acquired temporary value through experimental manipulation have been underestimated in respect to size. Objects with no value or with negative values induced by experimental manipulation have been underestimated.

**Personality Traits**

The theory of perception developed by Werner and Wapner (1956) assumes that all perception involves the interaction between sensory and motor processes. The motor processes of which Werner and Wapner were interested in are the tonic muscle contraction and their proprioceptive feedback processes. Sensory processes, of course, refer to all other types...
of different stimulation. Because it emphasise these two basic sets of factors, the theory is known as the 'sensory tonic' theory of perception. Moreover, Werner and Wapner emphasise the relationship between the perceptual processes and the observer.

Witkin and Price-William (1974) believe that the interrelationships discovered in their study of perceptual and personality variables reveal that there are three important personality dimensions significant for individual's interactions with his environment. First, there is the degree to which the individual possesses the ability to cope actively with his environment as opposed to accepting it passively. The active individual shows mastery in social and physical situations and has less need of environmental support for his decisions.

Second, the individual's perception of his body and his handling of his own impulses and strivings appeared to show a clear-cut relationship with performance on the spatial tests. The field-dependent, passive individual revealed a lack of awareness of his inner life, a fear of his own impulses, and poor control over his feelings and impulses, with the result that his anxiety level was higher than normal. Aggression and sexual impulses presented special problems for the field-dependent individual. The active, field-independent subjects who showed smaller deviation on the space tests also demonstrated good insight and reasonable mastery over their own motivational and emotional processes as revealed by the personality measures.

Personality questionnaires show field-dependent people to be more affected by social pressures and to have less self-esteem than field-independent people (Witkin & Price-Williams, 1974).

Learning

Learning covers more than factual knowledge. Equally important is the acquiring of social skills, or how to get on with others, what attitudes and values to hold. Emotional learning is the learning to emit appropriate emotional responses such as guilt, happiness, fear to relevant situations. Motor skills such as walking, riding a two-wheel bicycle, writing, etc. are learned. So the range of learning is extremely wide and involved in every area of behaviour (Burns & Dobson, 1984).

Most people think of learning as a process whereby the individual becomes more knowledgeable or skilful as the result of some educative experience. The above definition, however, does not stipulate that change should necessarily be in a positive direction. Thus, as a result of some traumatic experience or in appropriate
The two basic sets of theoretical ideas about distance learning are the information-processing theory and the social-learning theory. The interrelationships between these two theories are significant for the design of distance learning environments. The active individual handler has less need of the space to be actively with his environment; the passive individual has more need of the space to observe their environment, to process the information they receive, and to create and modify their mental structures. The active, intellectual individual is more likely to be more self-reliant within their field of experience. The passive individual is more likely to be more dependent on the distance learning environment for its intellectual development.

Learning occurs in the interplay between expectation and experience as Kolb (1984) suggests. It is an intellectual process of constructing knowledge, i.e., acquiring, processing, assimilating, and integrating information and ideas through constructive socio-cultural interaction. It is sustained by mental stimulation, and encouraged by the proper environment. A working definition of such an environment in distance learning settings can be outlined as being an intellectual, social, cultural, psychological milieu which facilitates and supports learning by fostering interaction, collaboration, and community.
and Atkinson, 1975). In claiming that learning relates to relatively permanent behavioural changes, we are eliminating from the ambit of learning transient behaviour changes due to drug taking, fatigue, and illness. However, we must admit there is no acceptable criterion in the time dimension which indicates when a behaviour can be regarded as relatively permanent. The implication of the phrase that learning is a result of prior experience is to remove from the category of learning any behavioural change resulting from maturation. Learning occurs as a result of environmental experience.

According to Veltman (1997), learning is closely connected with formal education but is a more fundamental concept because it includes informal learning as well. It includes five basic elements: contexts, goals, methods, kinds of learners, and types of learning.

**Contexts**

A student may write an exam and obtain a mark of 95%. Yet this may represent only 40% of the text, 10% of the course, 2% of the curriculum, and .002% of the corpus of knowledge in that field. One of the challenges of learning is to contextualize the achievements of students (and teachers), allowing them to understand these links in such a way that they are not discouraged. In concrete terms, this requires a systematic linking of facts and modules in each level of the system as listed: Corpus; Curriculum; Courses; Texts; Tests; Evaluations and Reviews.

**Goals**

Goals list all the benchmarks, curriculum documents, and equivalents in other provinces and other countries such as Benchmarks; Curriculum; and Equivalents.

**Methods**

Learning methods include all the formal methods of learning such as Course; Collaborate; Demo; Simulate; Train; Test; Evaluate; Review; Tracking; Reports.

**Kinds of learners**

At the level of theory, a great deal of effort has been dedicated to identifying kinds of learning. Four basic kinds are generally agreed upon: Cognitive, Affective, Perceptual, and Psychomotor.
In the future, these kinds of learning should be related directly back to the curriculum, courses, texts, and exams, such that there is a greater contextualization of knowledge. It will then be possible for a teacher or student to start from some learning skill (such as focus or perceptual performance), determine what sections in the curriculum and the course are directed to those goals, and see precisely which courses, texts, and tests exist for those skills. Alternatively, a student or teacher could begin with some item in their course of study and trace back to what skills this item or set of exercises is meant to develop, i.e., the reasons why it is being learned.

Kinds of learning

At present, most schools give students some basic psychological tests, the results of which are usually only consulted if the student becomes a so-called problem child, in which case the school psychologist uses the results in trying to help the child. Some will object that all this is much too complex for the everyday needs of schools and that a much simpler approach would do fine. It bears remembering that there is a basic and intermediate level in addition to the complexities of advanced navigation just outlined.

History Of The Internet

According to Gilster (1994) in his book “The Internet Navigator”, the Internet’s beginning gave no hint that it would evolve into a publicity accessible network. Like many other great ideas, the network of networks grew out of a project that began with a different intent: a network called ARPANET, designed and developed in 1969 by Bost, Beranek and Newman under contract to the Advanced Research Projects Agency of the U.S. Department of Defense (ARPA).

The ARPANET was a network connecting university, military and defense contractors; it was established to aid researchers in the process of sharing information, and not coincidentally to study how communications could be maintained in the event of nuclear attack. From humble beginnings- the ARPANET founders originally contemplated letting only researchers log in and run programs on remote computers- the network grew. They soon added file transfer capabilities, electronic mail, and mailing lists to keep people interested in common subjects in communication.

But even as the ARPANET grew, other networks were under development, and it became clear that new methods of communicating would be necessary. As early as 1973, in an era of mainframe computing a decade before the desktop PC revolution took hold, ARPA, under its new acronym DARPA (Defense Advanced Project Agency) began a program called the Internetting Project. The goal was to