

## **CHAPTER THREE**

### **Methodology**

#### **3.0 Introduction**

The research involves a general survey of a sample of approximately 40 teachers in Secondary schools teaching various subjects to obtain their perceptions toward the Internet for instructional purposes.

#### **3.1 Variables**

The independent variable will be the location of school (urban or rural), whilst the dependent variable will be teachers' perception towards the Internet as a new environment for teaching and learning. The intervening variables will be teacher's demographic characteristics (age, length of teaching experience, knowledge and Internet skills) and availability of Internet access.

#### **3.2 Instrumentation**

##### **(a) The Questionnaire**

The questionnaire consists of two sections. Section One deals with the demographics of the respondent. Section Two consists of a 45 item Likert type perception scale of 1 to 5 as below.

1 = Strongly disagree   2 = Disagree   3 = Uncertain   4 = Agree   5 = Strongly agree

The items are placed under six headings namely:

(i) Internet confidence; (ii) personal usefulness; (iii) teaching and learning; (iv) web-based lessons; (v) training; and (vi) Internet's potential.

Six main aspects of teaching and learning using Internet comprising 27 items are grouped under information, productivity, negative effects, revision and practice, motivation and assessment. The items of the survey were constructed by the researcher as a result of looking at items used for perception survey towards computer by researchers, interviews and written opinion of teachers, as suggested by Muller (1986).

#### **(b) Pilot Study**

A pilot study was carried out to refine the item pool and to test the items for reliability and validity by administering the items to 10 teachers who are Internet users.

### **3.3 Survey Sample**

A total of 40 teachers who are presently doing post-graduate courses with Internet *experience were selected for this survey. A total of 15 teachers were given the* questionnaires by hand and 25 were sent through normal mail. In all, 27 teachers responded to the survey. All the questionnaires given by hand were returned. But only 12 sets of questionnaires were received from those who were sent through mail.

Table 1

Age Distribution of Teachers

Age	Percentage/Frequency
21 – 30 years	25.9 (7)
31 – 40 years	70.4 (19)
Above 40 years	3.7 (1)
Total	100 (27)

Table 1 shows the age distribution of the respondents. It can be concluded that 96.3 % of the teachers who responded to the survey are under 40 years old and 70.4 % are teachers aged between 30 and 40 years. The percentage of the respondents over 40 years is only 3.7 %.

Table 2

Teaching Experience of Teachers

Teaching experience	Percentage/Frequency
0 – 5 years	29.6 (8)
6 – 10 years	40.7 (11)
11 – 15 years	18.5 (5)
More than 15 years	11.1 (3)
Total	100 (27)

Table 2 shows the teaching experience of the respondents. A total of 29.6 % of the teachers are with less than 5 years of teaching experience while 40.7% of the teachers have between 6 - 10 years teaching experience and 18.5% have between 11 – 15 years of teaching experience. Those with teaching experience of over 15 years account for only 11.1%.

Table 3

Internet Access Per Week

Access to Internet per week	Percentage/Frequency
0 – 5 hours	59.3 (16)
6 – 10 hours	18.5 (5)
Above 10 hours	22.2 (6)
Total	100 (27)

Table 3 shows the Internet access per week among the respondents. It can be concluded that most of the respondents are not heavy users of the Internet as 59.3 % of the teachers spend 5 or less hours per week in accessing the Internet which works out to approximately 45 minutes per day and 18.5% uses the Internet from 6 – 10 hours. A total of 22.2 % of the teachers spend more than 10 hours per week on the Internet, which is approximately 1.5 hours per day on the Internet.

Table 4

Training on Internet Skills

Internet skill training	Percentage/Frequency
Informal learning	55.6 (15)
Formal learning	44.4 (12)
Total	100 (27)

Table 4 shows the distribution of respondents with training on Internet skills.

Those who have acquired their Internet skills through informal learning either self-taught or through their friends is 55.6 % as compared to 44.4 % who have attended courses offered by the private colleges or computer centres to learn or upgrade their Internet skills. It can be concluded that some Internet skills can be acquired without formal training.

### 3.4 Data Analysis

#### (a) Coding

The responses for the survey were coded into a score sheet to facilitate data entry into the computer. There were 12 variables for the section on demographics and 45 variables for the item response statements.

#### (b) Recode

All the items response from the survey was recoded as follows.

Code	Recode
1 (Strongly disagree)	1 (Disagree)
2 (Disagree)	1 (Disagree)
3 (Uncertain)	3 (Uncertain)
4 (Agree)	2 (Agree)
5 (Strongly agree)	2 (Agree)

#### (c) Data Analysis

The data was statistically analysed using the SPSS v7.5 computer program. The frequency distribution of the teachers' perception towards teaching and learning with computers for all the variables was calculated.