

An overview of the quality, readability and relevance of Distance Education Instructional Modules at Domasi College of Education (Malawi)-a teacher - learner's perspective.

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Abstract

Domasi College of Education is the only institution which is training secondary school teachers by Distance Education in Malawi. The college faces the challenge of having to produce readable and relevant instructional materials. In this survey, the quality, relevance, and readability of distance education instructional materials is evaluated by the teacher-learners themselves.

A questionnaire was administered at the end of the 2001 residential course to an average sample of 152 students out of 600 teacher-learners enrolled. The respondents were required to evaluate various sections of the modules without being subject-specific. The areas evaluated were: general presentation of information in the modules, use of icons and headings, relevance of the objectives to the content and secondary school classroom needs, relevance of overviews, self evaluations and practice activities, and helpfulness of information on tables, charts and diagrams. The students were asked to respond to statements referring to the aforementioned sections of modules as follows: strongly agree(SA), agree(A), disagree(D), and strongly disagree(SD).

Most responses from the teacher-learners strongly indicate that the modules are highly readable and relevant to their classroom needs. According to this survey 83 % of the teacher learners have indicated that the general layout of information in the modules helps them follow the instruction easily and effectively. Regarding icons and headings, 95 % of the respondents find them helpful in learning modules. A good number of the teacher learners (78%) do not regard the icons as being too many and confusing. The evaluation of objectives shows that 85 % of the teacher- learners find the objectives matching with the information covered in the modules, and also find them relevant to their needs for classroom teaching. The teacher learners also indicate that the overviews, and self evaluations are helpful instructional tools. The survey has shown that 89% of the teacher learners find the overviews helpful in learning the materials in the modules. Most of the teacher learners (92%) find the self evaluation materials consistent with the objectives and helpful in understanding the modules. It has also been noted that 66% of the teacher learners regard tables, charts, and diagrams in the modules helpful in learning information.

1.0 Introduction

The secondary education sector in Malawi is faced with the challenge to produce well trained teachers. By conservative estimates, 1200 secondary schools are operating in Malawi, with an estimated 6000 teachers (Dzama, 200). Out of this number of teachers, 2800 are untrained, having no professional teaching qualification and a school certificate as their highest academic qualification (Dzama, 2000).

Since the current government came to power in Malawi, it has embarked on the programme of Poverty Alleviation. As one of its targets, the programme aims at increased opportunities for secondary school education. To this end the government has already established 700 Community Day Secondary Schools throughout the country, and continues to do so. It is notable that out of 2800 unqualified secondary school teachers, over 75 % are in these Community Day Secondary Schools (unconfirmed estimates from SSTEP, 2002). Currently, the demand for trained secondary school teachers is well beyond 1200 (Domasi College of Education prospectus, 2001).

Faced with the challenge of ever soaring teacher demand, the government noted that the shortfall can not be met by the conventional teacher training programmes alone. The Secondary School Teacher Education Project(SSTEP) at Domasi College of Education was established to address this shortfall. Currently, the college is training 600 teachers, and modalities to enroll another group of 300 are already in place! Training of teachers at a distance has among others, the following advantages: increased access, improved quality of instructional materials, and cost efficiency (Saint, 2000).

This survey was aimed at assessing the quality, readability and usefulness of instructional materials being used SSTEP teacher-learners. This survey was anchored on the premise that the teacher-learners themselves are the best evaluators of the readability of their modules. It notable that where the teacher and the student are separated by distance, successful curriculum design, requires clarity of communication, coherent logic, and good organization in its presentation (Saint, 200). Since the curriculum design and implementation is best expressed through the instructional materials, the significance of this base line survey can not be overemphasized. The survey evaluates each section of a typical Domasi College of Education Module. It was conducted at the end of the 2000 residential course in December.

2.0 Methodology

A questionnaire was administered at the end of the 2001 residential course to an average sample of 152 students out of 600 teacher-learners enrolled. The respondents were required to evaluate various sections of the modules without being subject-specific. The areas evaluated were as below:-

- a. General presentation of information in the modules.
- b. Use of icons to locate information
- c. Number of icons
- d. Headings.
- e. Matching of objectives to the content.
- f. Matching of objectives to secondary school classroom needs.
- g. Relevance of overviews.
- h. Matching of evaluations and objectives.
- i. Helpfulness of self-evaluations in learning.
- j. Student's need for more self evaluations
- k. Helpfulness of charts and diagrams.

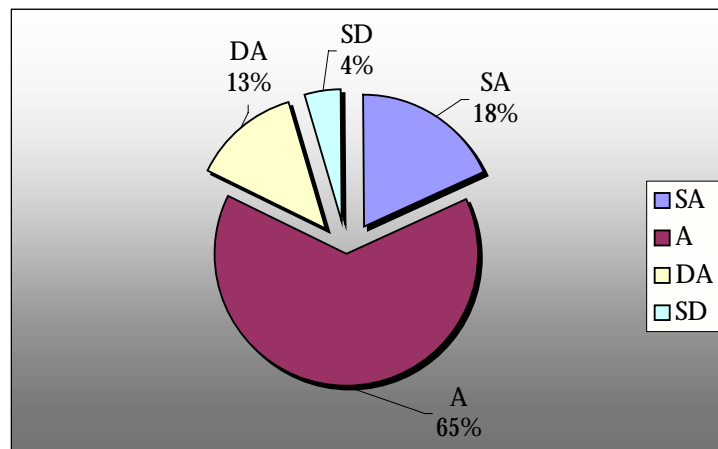
The respondents were asked to grade the statements referring to the areas being evaluated above (sections of modules), as follows: strongly agree(SA), agree(A), disagree(D), and strongly disagree(SD).

A copy of the questionnaire used is in the appendix

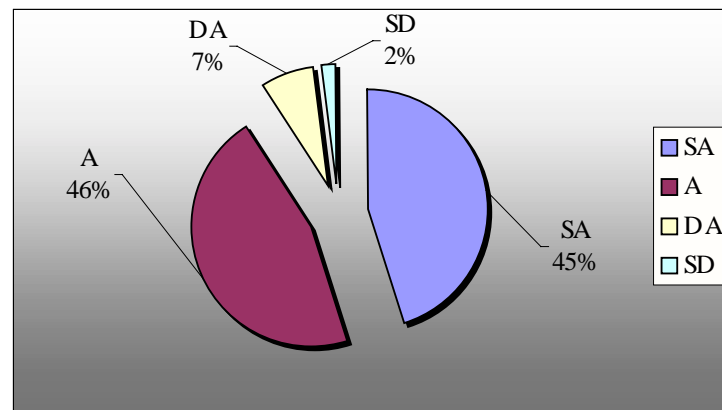
3.0 Results of the survey

Data collected using the questionnaire (appendix) has been analysed using pie charts and these are shown below:

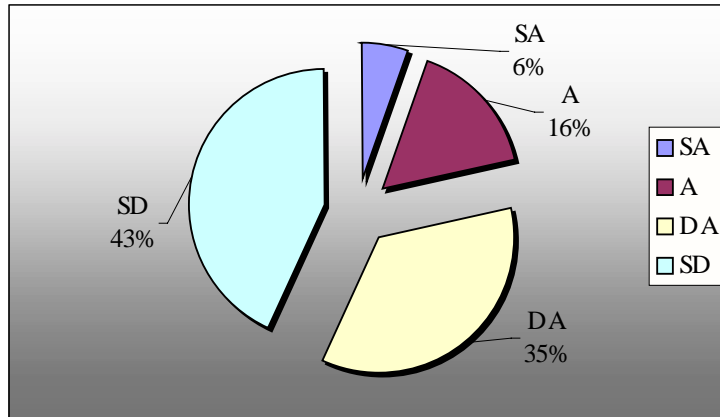
a. General presentation of the modules was effective



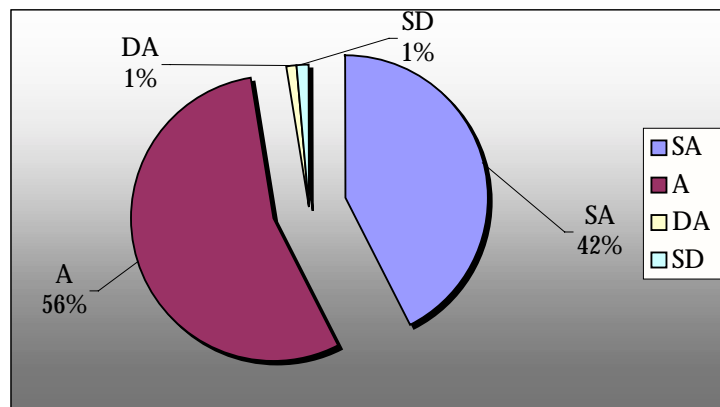
b. Icons helped me locate information



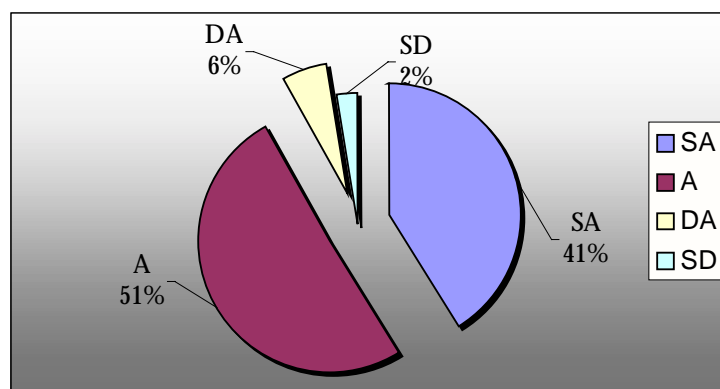
c. Too many icons and they confused me



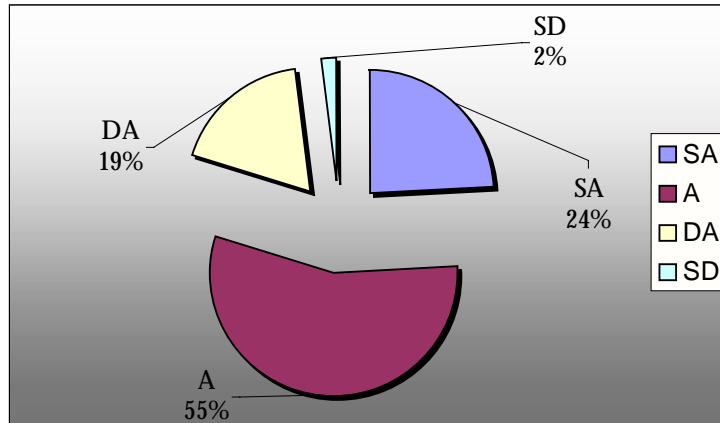
d. Headings helped me locate information



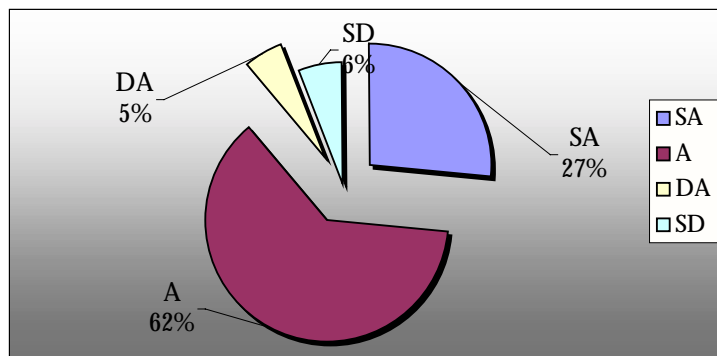
e. Objectives matched information covered in the modules



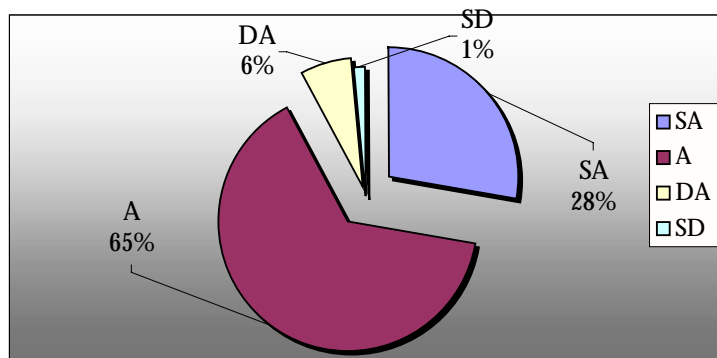
f. Objectives matched my classroom teaching needs



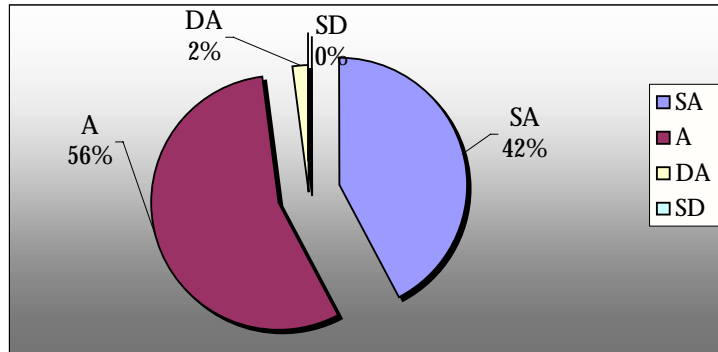
g. Overviews and introductions helped me prepare for learning



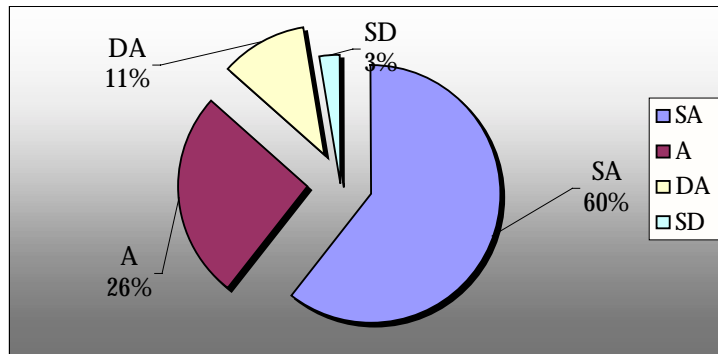
h. Self evaluation matched objectives of the module



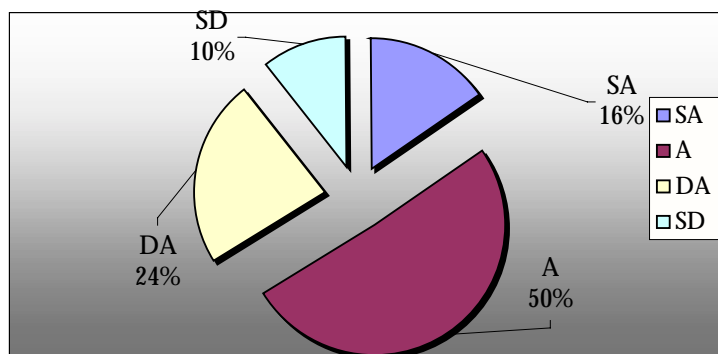
i. Self-evaluation helped me learn the material



j. I need inclusion of more self-evaluation activities



k. Tables, charts, diagrams helped me learn information



4.0 Discussion and Conclusion

As this was only a base line study, care is being exercised not impose hard and fast conclusions. It therefore suffices to state that the discussions here will mainly make inferences.

From the results it is notable that 83% of the distance education learners find the presentation of information in the modules effective. For instance, not all the texts on all the pages end at the same place and the margins are not right justified. It has been shown the such rules of the thumb which are favoured in non-instructional publishing are counterproductive in the design of instructional materials (Hartley, 1978; 1982; Hartley and Burnhill, 1977).

Over 91% of the teacher learners find the icons helpful in locating information and they also appreciate their adequacy(78%). It is important that icons in a particular course be explained in the *Introduction to the Course Guide* (Misanchuk, 1993). They act as devices that give direction (Waller, 1977) and to make the document more accessible (Waller 1977, 1982). In the modules in question, icons are well explained in advance. In these modules the icons are well explained in the overview that comes at the beginning of each module.

The objectives in the modules helped location of information (98%), matched information covered in the modules (92%), and matched the classroom needs of the student's (79%). The module objective are carefully matched with the content, course assignments and tests. It has been shown that such a design, eliminates or reduces irrelevant, un-communicated expectations, and unfair testing (Misanchuk, 1993). While research on instructional objectives has led to mixed results most researchers agree that objectives are still helpful to learners (Macdonald-Ross, 1978; Davies, 1976; Hartley and Davies, 1976).

Most teacher-learners agree that the overviews and introductions helped them to prepare in advance to learn the material(89%). Introductions have been shown to motivate learners (Canfield, 1968) and instruct learners in the significance of the skills they will be acquiring (Shmitt and Newby, 1986).

The self-evaluation sections are also helpful to most teacher learners. From the survey 93% of the teacher learners find the self-evaluation matching the objectives of the particular unit. They also indicate that these evaluations helped them to learn the module(98%). The need for more self evaluation exercises as indicated by 86% is further proof that the learners find these exercises very helpful.

Most teacher learners indicate that tables, charts and diagrams help them understand information. Tables compress information and eliminate redundancy (Macdonald-Ross, 1977), allowing the reader to understand a lot in a minimum of space. But we need to remind ourselves that the elimination of redundancy can be a false economy, if the learners face more problems in retrieving information from the table (Wright, 1982). Winn and Holiday, (1982) also indicate that diagrams are not suitable for average

learners and recommend that they be avoided as much as possible. They found that bar charts are usually easier to understand than either pie charts or line graphs. Since 66% agree that these were helpful, we can fairly deduce the use of tables, charts and diagrams is helpful to the teacher learners. While this usefulness is there, we realize that of all the module elements discussed, these elements have registered lowest readability. Clearly, an examination of the modules with respect to tables, charts and diagrams is warranted.

5.0 The way forward

As already pointed out this was a baseline survey. The treatment here has been general. Future surveys need to be subject specific. It is hoped that in this way, specific problematic areas can be streamlined and targeted for revision.

As this paper was being written, all the modules had been revised. It would therefore make an interesting comparison if another survey was carried out.

Future evaluations should also consider incorporating, comments from the teacher learners not just short responses.

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6.0 Appendix

Domasi College of Education — SSTEP

December 2000

Module Evaluation

The information obtained from this questionnaire will assist use to improve our instruction.

Read each of the following statements then indicate how you feel about the statement for each question. Use the following table to help you.

If you:	Then place an X or a ✓ in the column under the heading:
strongly agree with the statement	SA
agree with the statement	A
disagree with the statement	D
strongly disagree with the statement	SD

The following statements refer to **all** modules in **all** subject areas.

		SA	A	D	SD
1	I thought the general presentation of these modules was effective.				
2	The icons helped me locate information				
3	There were too many icons and they confused me.				
4	The headings helped me locate information.				
5	The objectives matched the information that was covered in the modules.				
6	The objectives matched the needs I have for teaching in my classroom.				
7	The overviews and introductions helped me prepare to learn the material.				
8	The self-evaluation activities matched the objectives of the module.				
9	The self-evaluation activities helped me learn the material.				
10	I would like more self-evaluation activities included in these modules.				
11	The practice activities will help me practice my teaching skills.				
12	The summaries helped me review what I should have learned.				
13	The information in these modules was presented in a sequence that helped me learn the information.				
14	The tables, charts and diagrams that were used helped me learn the information				

