## CHAPTER 8

#### CONCLUSIONS

This report has dealt with an important but a relatively uninteresting stage of the project, for it has really involved nothing more than the construction of a piece of test equipment which had to be available before any investigations could be made. While any firm conclusions will have to await the result of using the equipment in the test programme, there are certain comments which can be made regarding this stage of the work, partly in pointing out some obvious mistakes. Primarily we were at fault in our calculations of time and were only able to complete the programme as planned because we had allowed a generous amount of spare time. The original intention of this allowance was partly so that the indexing staff would be able to help with the clerical routines, but mainly so that they would have reasonable breaks from indexing. The fact that they were unable to do any other work was relatively unimportant, since this could be done by part-time staff. It was more serious that throughout the second year they could have only short breaks from indexing, and I feared that staleness brought on by mental indigestion would affect the standard of indexing. Fortunately this does not appear to have happened.

We had two separate delays. First, following the announcement of the award of the grant, there was a gap of seven months before we started the indexing. Secondly we had the long period when indexing proceeded very spasmodically due to difficulties in setting up the systems. Our difficulties were partly due to the fact that we were forming what virtually amounted to a new organisation. Had there been a documentation research unit already in being in England, it might have been possible to have

followed the suggestion made by the National Science Foundation that, prior to the award of the main grant, we should have carried out a small pilot investigation. The difficulty for us lay in finding suitable qualified staff who would be willing to join an investigation whose future was not definitely certain. Now that Aslib are setting up a research unit, it is to be hoped that it will be possible for permanent staff to do preliminary work which might thereafter be continued by staff who are taken on for the duration of the main project.

One possible weakness of the programme was the lack of feedback to the indexers. In normal circumstances, an indexer in an organisation will be continuously aware of the type of enquiry which is being put to the indexes, and quite often it would be the case that the indexer is himself carrying out searches. As a result, he will be influenced in his indexing and might be expected to index more effectively for the needs of the particular organisation. Mr. Sharp had some years experience of working in an aircraft firm, and therefore knew the types of question which we might expect to receive. Mr. Hadlow, on the other hand, had no previous practical experience which could help him with the indexing and was not able to obtain any during this stage of the project.

It can be counted as a retreat from our original plans that we did not have the services as an indexer of a person with technical qualifications I do not think that this can be considered as seriously affecting the basic purpose of the project, namely the comparative efficiency of the systems, and there are other methods which we can use to assess whether a technical indexer would have been more or less efficient than the librarians who did the work.

# Future stages

The National Science Foundation have awarded a further grant for the completion of the project, and the basic test programme is now under way. This is expected to be completed by December 1960, and will be followed by a detailed analysis of the results which may, in turn, show the need for further testing.

It will be possible to analyse our results so as to ascertain in detail the reasons for the success or failure in locating information. Within this general framework lie the decisions by the indexer of the significant matters in the text; the assistance which is given by the different systems to enable him to decide on satisfactory codings for the selected information; the ease or difficulty of translating the language of a question enquiry into the language of the index; the comparative assistance which the various systems give the searcher in finding specific or further relevant information.

We shall be able to isolate many of the variables which are inherent in the problem and find the effect of altering our original actions. Eventually it should be possible to arrive at a position where we can state with reasonable certainty exactly which requirements an information retrieval system must meet and propose methods for the design of such a system. Writing of the advances that have taken place in aeronautics during the past 50 years, Mr.M.J.Lighthill, F.R.S., Director of the Royal Aircraft Establishment, says "Countless ingenious experiments on models lay at the back of every advance, and brilliant theories have been evolved to make sense of the experiments". We hope that the data obtained from this experiment will provide many others working in the field with information which will enable them to advance their theories in the basic design of retrieval systems.

## REFERENCES

1. de Kock, A.C., The N.L.L. Card Catalogue of van der Vooren, A.I. Aerodynamic Measurements. N.L.L. Report F125 1953. 2. Cleverdon, C.W., A Brief Experiment with the Uniterm Thorne, R.G. System of Co-ordinate indexing for the Cataloguing of Structural Data. R.A.E. Library Memo 7. 1954. Tests of N.L.L. Card Catalogue of 3. Vessey, H.F. Aerodynamic Measurements. R.A.E. Library Memo 1954. Cleverdon, C.W. Some Aspect of Information Retrieval. Aslib Proceedings, Vol. 7, 1955 pp 153-6. 5. Editorial "The Truth, the Whole Truth..." American Documentation, Vol.6, 1955 pp 56. Metcalfe, I.J. Information Indexing and Subject Cataloguing. New York. Scarecrow Press, 1957. 7. Classification Research Bulletin No. 5, Group Jnl. of Documentation. Vol. 15, 1959, pp 39 - 57. Guiding Principles for Time and Cost Mathieu, J., Barlen, S. in Documentation work. Forschber. Wirts-U. Verkehrsm. N-Rh-Westf., (636) 1958.(M. of S. TIL/T4966) 9. Whelan, S. Library Retrieval: The R.R.E. Pilot Retrieval Scheme. R.R.E. Jnl. October 1958, pp 59 - 68.

# References (Continued)

10.	Mooers, C.N.	Zatocoding and Developments in Information Retrieval. Aslib Proceedings, Vol. 8, 1956 pp 3 - 22.
11.	Wildhack, W.A., Stern, J., Smith, J.	Documentation in Instrumentation. American Documentation, Vol. 5, 1954, pp 223 - 237.
12.	Wadington, J. P.	Unit Concept Co-ordinate Indexing. American Documentation, Vol.9, 1958, pp 107 - 113.
13.	Farradane, J.E.L.	A Scientific Theory of Classification and Indexing. Jnl. of Documentation, Vol.6, 1950 pp 83 - 99. Vol.8, 1952, pp 73 - 92
14.	Coates, E.J.	The Use of the B.N.B. in Dictionary Cataloguing. Library Ass. Record, Vol. 59, 1957, pp 197 - 202.
15.	Kaiser, J.	Systematic Indexing. London, 1911.
16.	Prevost, M. L.	An Approach to the Theory and Method in General Subject Headings. Library Quarterly, Vol. 12, 1942, pp 140 - 151.
17.	Swanson, D. R.	Word Correlation and Automatic Indexing Phase I Final Report. An Experiment in Automatic Text Searching. Ramo Wooldridge, 1960.
18.	Sanford, J. A. Theriault, F. R.	Problems in the Application of Uniterm Co-ordinate Indexing. College and Research Libraries, Vol. 17, 1956, pp 19 - 23.