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"THE STAFFING OF SCIENCE DEPARTMENTS
IN NEW ZEALAND SECONDARY SCHOOLS".

A thesis presented in partial fulfilment of
the requirements for the degree of Master of
Philosophy in Education at Massey University.

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ABSTRACT

This thesis attempts to ascertain the state of staffing in science departments of New Zealand Secondary Schools as at 1st September 1980.

This study updates, and extends, the work done by E.J. Searle (1954) and O. Taylor (1965) of producing data about the staffing of science departments in secondary schools.

The survey consisted of two different questionnaire forms. One was to be completed by the Head of Department (H.O.D.) Science while a second form was completed by every teacher in the schools who was teaching one or more science classes.

The questionnaires were sent to all State and Private Secondary Schools, District High Schools and the Form 3 - 7 departments of Form 1 - 7 Schools. A response from 70% of the schools resulted.

The major areas for which information was obtained included: qualifications held and qualifications relevant to senior science subjects being taught, the percentage of trained teachers teaching science, salaries, the resources available to the teacher of science, the main areas of concern in science education as perceived by the teacher of science, and information from H.O.D s about the numbers of science teachers leaving teaching and the type of employment they had gone to. Information was also obtained relating to class sizes, the level of training and the teaching ability of teachers in training (i.e. those on Section and List A teachers), morale in science departments, the extent to which science teachers have become subject specialists and the type of people involved in part-time science teaching.

The responses made were hand coded by the researcher, punched on to computer discs and the necessary sorting and statistical analyses were done by Massey University's B6700 Computer.

Listed below are some of the major findings of the project. It seems that most teachers of science teach mainly science (81.7%) which is a marked increase in subject specialisation since 1965.

The teacher of science is generally much better qualified than in 1965 and 86.6% of the sample were trained teachers. Teachers with tertiary qualifications in Education, other than the Diploma in

Teaching, are quite rare (13%).

One of the major findings of Taylor's 1965 survey was that 57.7% of the science teachers in District High Schools and F. 1-7 Schools lacked completed degrees or diplomas. This value has now dropped to 20.5%.

Most teachers (76.4%) are reasonably happy with their present salary even though they do lack salary relativity with other professions having similar qualifications.

Excluding salary considerations, 64.4% of the sample were reasonably happy with their present situation as post-primary teachers of science. Science teachers did, however, recommend most strongly that less class contact time, better equipment and textbooks, more technician assistance and smaller teacher/pupil ratios are essential requisites of future modifications to their present conditions.

There is a definite shortage of well-trained, well qualified teachers which has to some extent been improved by the recruitment of teachers from overseas. For the schools in the sample the total shortage of science teachers was 1170 class contact hours per week.

The mean size of a science class has remained static at 23 over the past twenty-six years since Searle's 1954 survey.

The thesis concludes with some recommendations of future changes that the researcher feels would help improve staffing and conditions in the science departments of New Zealand secondary schools.

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LIST OF ABBREVIATIONS

B.A.	Bachelor of Arts
B.Ag.Sc.	Bachelor of Agricultural Science
B.Ed.	Bachelor of Education
B.H.Sc.	Bachelor of Home Science
B.Sc.	Bachelor of Science
B.Sc. (Hons.)	Bachelor of Science with Honours
Co-ed	Co-educational
Dip.H.Sc.	Diploma in Home Science
Dip.P.E.	Diploma in Physical Education
Dip.Ed.	Diploma in Education
D.H.S.	District High School
F. 1-7	Forms One to Seven
H.O.D.	Head of Department
Hons.	Honours
incom.	Incomplete
M.A.	Master of Arts
M.Ag.Sc.	Master of Agricultural Science
M.Ed.	Master of Education
M.H.Sc.	Master of Home Science
M.Phil.	Master of Philosophy
M.Sc.	Master of Science
M.Sc. (Hons.)	Master of Science with Honours
N.Z.C.S.S.	New Zealand Certificate of Science
N.Z.I.C.	New Zealand Institute of Chemistry
N.Z.P.P.T.A.	New Zealand Post Primary Teachers' Association
N.Z.S.T.A.	New Zealand Science Teachers' Association
Ph.D.	Doctor of Philosophy
P.P.T.A.	Post Primary Teachers' Association
P.R.	Position of Responsibility
P.S.S.C.	Physical Sciences Studies Committee
S.T.A.	Science Teachers' Association
T.C.	Teachers' College
T.T.C.	Trained Teacher's Certificate
%	Percentage

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