

INTERNATIONAL INSTITUTE EXAMINATIONS ENQUIRY

AN
EXAMINATION
OF
EXAMINATIONS

Being a Summary of Investigations on the Comparison of Marks allotted to Examination Scripts by Independent Examiners and Boards of Examiners, together with a Section on a Viva Voce Examination

BY

SIR PHILIP HARTOG, K.B.E., C.I.E.

AND

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READER IN STATISTICS IN THE UNIVERSITY OF LONDON

SECOND EDITION

Fourth Impression

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AN EXAMINATION OF EXAMINATIONS

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PREFACE TO THE FIRST EDITION

1. No element in the structure of our national education occupies at the present moment more public attention than our system of examinations. It guards the gates that lead from elementary education to intermediate and secondary education, from secondary education to the Universities, the professions, and many business careers, from the elementary and middle stages of professional education to professional life.

2. Quite apart from the safeguards imposed by Acts of Parliament and Government authorities, a whole congeries of examinations has sprung up in the last century, created by private and public bodies¹. Examinations have become a familiar topic in our newspapers and in our homes. The examination system has grown to be an important element, not only in our education, but in the whole social system of our country; and the interest of many other countries in this matter is not less than our own.

3. The investigations on examinations of which this pamphlet is a summary are the outcome of an International Conference on Examinations held in May, 1931, at Eastbourne, under the auspices of the Carnegie Corporation, the Carnegie Foundation, and the International Institute of Teachers College, Columbia University. The countries represented at the Conference were (in alphabetical order) England, France, Germany, Scotland, Switzerland, and the United States². As a result of that

¹ In a *Conspectus* in preparation by the Committee there will appear between 150 and 200 names of such bodies, exclusive of Universities and Local Education Authorities.

² The Report of the Eastbourne Conference on Examinations, edited by Professor Paul Monroe, Director of the International Institute, was published by the Bureau of Publications, Teachers College, Columbia University, New York City, in 1931.

The representatives from the United States at the Conference were as follows:—

Dr. C. H. Judd, Dean of the School of Education, University of Chicago.

Dr. Frederick P. Keppel, President of the Carnegie Corporation, New York City.

Dr. Paul Monroe, Director of the International Institute, Teachers College, Columbia University.

Conference committees were set up in all the European countries above-named. Each of these committees received a grant for three years from the Carnegie Corporation through the International Institute, and each of them reported independently to a second International Conference held in June, 1935, at Folkestone, under the same auspices as the Conference held at Eastbourne. The Committees have done their work on independent lines and have reported separately. This pamphlet is substantially identical with the report presented by the English Committee to the Folkestone Conference, and it is published in its present form in accordance with a wish expressed at that Conference.

4. The English Committee consisted of the following: Sir Michael Sadler, K.C.S.I. (Chairman), Dr. P. B. Ballard, Dr. C. Delisle Burns, Professor Cyril Burt, Sir Philip Hartog, K.B.E. (Director), Professor Sir Percy Nunn, Professor C. Spearman, F.R.S., and Professor Graham Wallas. The Committee suffered a great loss in 1932 by the death of Professor Graham Wallas, who was replaced by Professor Godfrey Thomson, a member of the Scottish Committee. Professor H. R. Hamley and Professor C. W. Valentine joined the English Committee in the present year³. The address of the English Committee is 1, Plowden Buildings, Temple, London, E.C.4.

Dr. Henry Suzzallo, President of the Carnegie Foundation, New York City.

Dr. Edward L. Thorndike, Professor of Education, Teachers College, Columbia University.

* The membership of the other Committees is shown below:—

FRANCE—

M. A. Desclos, Directeur-adjoint de l'Office National des Universités et Ecoles Françaises (*President*).

M. Barrier, Adjoint au Directeur de l'Enseignement Primaire.

M. Bouglé, Directeur-adjoint de l'Ecole Normale Supérieure.

M. Gastinel, Inspecteur Général de l'Instruction Publique.

M. Laugier, Maître de Conférences à la Faculté des Sciences de Paris.

M. Luc, Directeur-adjoint de l'Enseignement Technique.

The original Committee included:

M. Charles Maurain, Doyen de la Faculté des Sciences de l'Université de Paris (who resigned on account of the pressure of other duties).

M. Cope, Président du Syndicat National des Professeurs des Lycées de Garçons et de l'Enseignement Secondaire Féminin (since deceased).

GERMANY—

Professor Erich Hylla, Ministerialrat im Ministerium für Kunst,

5. The Committee engaged Dr. E. C. Rhodes, Reader in Statistics in the University of London, to act as their statistician.

6. Touching education and social life as they do on so many points, the problems of examinations are many and varied. The Committee have published an *English Bibliography of Examina-*

Wissenschaft, und Volksbildung in Preussen; Professor an der Pädagogischen Akademie, Halle.

Dr. Robert Ulich, Ministerialrat im Ministerium für Volksbildung in Sachsen.

The original Committee included also:

Professor Dr. Carl Becker, Minister a.D. für Kunst, Wissenschaft, und Volksbildung in Preussen; Professor an der Universität, Berlin (since deceased).

Dr. Otto Bobertag, University of Berlin (since deceased).

SCOTLAND—

William Boyd, M.A., B.Sc., D.Phil., Lecturer in Education, Glasgow University.

Shepherd Dawson, M.A., D.Sc., Lecturer in Psychology, Jordanhill Training College, Glasgow (since deceased).

Professor James Drever, M.A., D.Phil., Professor of Psychology, Edinburgh University.

Thomas Henderson, B.Sc., F.E.I.S., Hon. Secretary of the Scottish Council for Research in Education.

W. A. F. Hepburn, M.C., M.A., B.Ed., Director of Education to the Ayrshire Education Committee.

Professor W. W. McClelland, M.A., B.Sc., B.Ed., Professor of Education, St. Andrews University.

J. Mackie, M.A., D.Sc., F.R.S.E., Head Master, Leith Academy.

Robert R. Rusk, M.A., B.A., Ph.D., Lecturer in Education, Jordanhill Training College, Glasgow; Director to the Scottish Council for Research in Education.

J. C. Smith, C.B.E., M.A., D.Litt., formerly Senior Chief Inspector of Schools, Scottish Education Department.

Professor Godfrey H. Thomson, Ph.D., D.Sc., Professor of Education, Edinburgh University.

SWITZERLAND—

M. Pierre Bovet, Professeur à l'Université de Genève; Directeur de l'Institut Universitaire des Sciences de l'Education, Genève.

Dr. Brenner, Directeur du Lehrerseminar, Bâle.

M. Edouard Claparède, Professeur de Psychologie à l'Université de Genève; Directeur de l'Institut Jean-Jacques Rousseau.

M. Robert Dottrens, Directeur d'Ecoles, Troinex, Genève (Dr. Soc.).

Dr. Charles Junod.

M. Albert Malche, Conseiller aux Etats; Professeur à l'Université de Genève.

M. Jean Piaget, Directeur du Bureau International d'Education.

tions (1900-32)⁴, which shows how much has been written on the subject in this country during the first third of the century. The Committee are also publishing a volume of *Essays on Examinations*, dealing with a number of aspects of the subject, which will appear soon after this pamphlet, and a *Conspectus of Examinations in Great Britain and Northern Ireland*, which will appear later. But the main work carried out for the Committee will be recorded in a volume entitled *The Marks of Examiners*, now in course of printing, of which the present pamphlet is a summary.

7. The object of the investigations to be described may be explained very simply. Professor F. Y. Edgeworth, many years ago, found that the marks allotted independently by twenty-eight different examiners to a piece of Latin prose varied from 45 to 100 per cent. In the United States, Messrs. Starch and Elliott, and, in France, M. Laugier and Mlle. Weinberg have found similar results, but no systematic comparison has hitherto been published of the marks allotted by a number of different examiners, all experienced and qualified for their task, to sets of scripts (answer-books) actually written at public examinations. Both the English and the French Committees have attacked this subject, and the present pamphlet gives a fairly extended summary of the English results and a brief one of the French. These results are similar in the two countries, and equally disquieting. It is clear that the part played by chance in the verdicts given at different examinations on which careers depend must often at the present moment be a great one. The Committee are well aware that the consideration of borderline cases by examination authorities does materially diminish the chances of a candidate being wrongly rejected; but it must be pointed out that candidates may be placed in error below the

Genève; Professeur extraordinaire à l'Université de Genève;
Co-directeur de l'Institut Jean-Jacques Rousseau.

Dr. W. Schohaus, Schweizerische Erziehungs Rundschau, Kreuzlingen, Thurgovie.

Dr. Ida Somazzi, Seminar, Berne.

Dr. Hans Stettbacher, Lehramtkurse, Universität, Zurich.

M. Teodoro Valentini, Professeur, Scuola Normale, Locarno, Tessin.

⁴ *An English Bibliography of Examinations (1900-1932)*, by Mary C. Champneys, with a Foreword by Sir Michael Sadler and Sir Philip Hartog (Macmillan & Co., Ltd.), 1934.

“borderline.” Again, it must be remembered in the interest of the public, to whom an examination certificate means a certificate of efficiency, that candidates may now by chance obtain such certificates when they should by rights be rejected.

8. Of all the results recorded by the English Committee perhaps the most disturbing are those recorded in the investigation on the marking of School Certificate History scripts. It was found that when fourteen experienced examiners re-marked independently fifteen scripts which had all received the same moderate mark from the examining authority by which they were furnished, these examiners, between them, allotted over forty different marks to the several scripts. It was found, further, that when these examiners re-marked once more the same scripts after intervals of from twelve to nineteen months, they changed their minds as to the verdict of Pass, Fail, and Credit in 92 cases out of the total of 210. Clearly a test of this kind cannot inspire confidence.

9. Our investigations show that the employment of boards of examiners instead of individual examiners, though it diminishes, does not remove the element of chance in examinations, and that boards, as well as individuals, may disagree in their verdicts. The element of chance in examinations still subsists to a dangerous degree in the subjects which have been investigated by the Committee.

10. The question may at once be asked : Should examinations be abolished ? If not, what remedies can be suggested ?

The Committee are clearly opposed to the root and branch policy. They are of opinion that examinations as a test of efficiency are necessary. They are further of opinion that, in addition to those examinations which yield identical results when applied by different examiners (e.g. “New Type” or “Objective” examinations), the traditional “essay” examination should be preserved. But they hold that it is as impracticable to recommend an *a priori* cure for the defects of the present examination system as it would be to recommend an *a priori* cure for a disease. It is only by careful and systematic experiment that methods of examination can be devised not liable to the distressing uncertainties of the present system. No doubt investigations like those recorded by our Committee, and administrative experiments in allowing teachers, in conjunction with Government or University inspectors, to “brand

their own herrings," would involve expenditure, but such expenditure and experiments would be justified in the public interest.

The Committee desire to acknowledge their deep obligation to the various examination authorities by whom they have been furnished with the scripts which formed the material for their investigations, or by whom they have been assisted in other ways, and to the examiners who marked the scripts or took part in the *circa voce* examination. Without the cordial assistance both of examination authorities and of examiners, it would have been impossible for the Committee to carry out their investigations on the lines which they had planned.

In conclusion, the Committee wish to express their warm appreciation of the generosity and initiative of the Carnegie Corporation, the Carnegie Foundation, and the International Institute of Teachers College, Columbia University, to which this Committee and the parallel Committees in other countries owe their existence.

PREFACE TO THE SECOND EDITION

The first edition of this pamphlet appeared in December, 1935. A few slips were corrected in the second impression, which was issued shortly afterwards; and some further corrections of detail have been made in the present edition. These corrections do not in any way affect the conclusions of the Committee. While the pamphlet has been received with warm approval by the general public, it has evoked certain criticisms, with some of which it is proposed to deal in *The Marks of Examiners*, now nearly ready for publication. To have dealt with the criticisms in this pamphlet would have involved an increase in both its size and price which was thought undesirable.

It should be added that Professor Valentine, who was elected a member of the Committee in July, 1935, resigned at the end of December in the same year, and that Professor F. Clarke, M.A., Advisor to the Overseas Students in the Institute of Education of the University of London and Director-elect of the Institute, who has been in close touch with the Committee for some time, became a member early in 1936.

April, 1936.