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**Help will be welcomed from every quarter:**

**The work of William Boyd and the Educational Institute of Scotland's Research Committee in the 1920s**

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## **Abstract**

This paper discusses evidence, collected during an ESRC-funded project ('Reconstructing a Scottish School of Educational Research, 1925-1950'), of a remarkable vision to involve teachers in educational research in Scotland by the Educational Institute of Scotland in the 1920s through the work of its Research Committee. Led by William Boyd, the Committee thought that involvement in research was a crucial stepping stone towards achieving professional status for teachers. They conducted a number of detailed investigations involving teachers, thereby introducing research into the consciousness and practice of teachers. This paved the way for Scotland to make significant contributions to educational research on the international stage.

**Keywords:** William Boyd; educational research; Educational Institute of Scotland; teachers; teacher training; Scottish Council for Research in Education.

## **Help will be welcomed from every quarter: The work of William Boyd and the Educational Institute of Scotland's Research Committee in the 1920s**

In Scotland, in the early part of the 20<sup>th</sup> Century, under the leadership and inspiration of Dr William Boyd and the Educational Institute of Scotland (EIS)—the country's largest teaching union—a new movement in the history of educational research in the UK was begun. Using the EIS's weekly journal—the Scottish Educational Journal (SEJ)—as a portal, Boyd and the EIS's Research Committee directly encouraged teachers to form a large network. This inquired into the value of testing in the assessment of children in their classrooms, and endowed the teachers of Scotland with a new means of understanding learning among children. The story of Boyd's work with teachers in the 1920s is a significant and unusual contribution to the history of educational research in Scotland and the UK.

In order to understand the development of this research network, one first needs to understand its chief protagonist. Born and raised in poverty in rural Ayrshire, William Boyd gained a scholarship to attend first Ayr Academy and then Glasgow University, where he studied Philosophy under Edward Caird. Boyd embodied the 'lad o'pairs'; the boy with the unique combination of intelligence, talent and personal qualities necessary to propel him from the parish school through the universities and on to a profession. This was a central aspect of Scottish education and reflected the strong belief in the value of education and the notion of the democratic intellect that formed a distinctive part of Scotland's educational system<sup>1</sup>. At this time the four main professions were medicine, law, religion and education. Boyd's philosophical background and his temperament ruled out the first two and, after an aborted attempt at training for the ministry, he elected to pursue a career as a teacher. Taking advice from his professors, Boyd undertook a science degree, which at the time would have sufficiently qualified him for entry into the teaching profession. However, Boyd believed in the value of specialist training for teachers and put himself through teacher training, gaining his parchment a few years after starting work as a teacher. Boyd was appointed as lecturer in Education at Glasgow University in 1907. It was while preparing for this task – which he did by reading up on the works of the great educators as well as the new developments stemming from Dewey, Binet and Montessori – that Boyd came across the work of Rousseau. Boyd became an enthusiastic disciple of Rousseau, whose ideas of education as being child-centred in a personal and creative way were greatly in keeping with Boyd's own<sup>2</sup>. He obtained

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<sup>1</sup> Walter Humes and Tom Bryce, 'The Distinctiveness of Scottish Education', in *Scottish Education*, ed.T.G.K.Bryce and W.M.Humes (Edinburgh: Edinburgh University Press, 1999): 102-11.

<sup>2</sup> William Boyd, *William Boyd's Life Story 1874 to 1962. Autobiographical notes made in Devon after 1955*. Unpublished manuscript held at Glasgow University Archives (n.d.): 138.

his D.Phil in *The Educational Theory of Rousseau* from Glasgow University in 1911, Boyd was dedicated to his new profession and quickly became involved in educational reform, which he felt was applicable to the entire educational system. Even as a young teacher he firmly believed in treating schoolchildren as human beings with rights of their own<sup>3</sup>. An outspoken idealist, Boyd was drawn to political discussion and found himself at the centre of many fierce debates amongst his fellow teachers on educational reform and the future of their profession. It was a great source of disappointment and frustration to both Boyd and the EIS that teaching as a profession was traditionally seen to be of lesser importance than those of medicine, law or religious ministry, and they were committed to raising the status of the teaching profession<sup>4</sup>. Boyd believed that an important step in achieving professional status was for the governance and regulation of the teaching profession to be placed in the hands of teachers<sup>5</sup>. In particular, he thought that the examination of pupils, an integral part of any educational system, should be the task of teachers, not bureaucrats: “It has always been my conviction that teaching will never be a proper self-respecting profession till most of the functions of inspection and examination are in the hands of the teachers as individuals or as a corporate body”<sup>6</sup>. During the years of World War I, Boyd dedicated a great deal of thought to nurturing teaching as a profession. In 1917 he drafted a ‘Code of Professional Etiquette for Teachers’ which outlined how a self-governed teaching profession might look<sup>7</sup>. Boyd’s ideas fell on fertile soil. The strong commitment to education within Scotland, evident in the creation of a state education system following the Education (Scotland) Act 1872<sup>8</sup>, meant that Scottish teachers were already highly skilled and highly motivated. There was a spirit of co-operation and of common purpose within Scotland’s educational system that was not evident in the larger systems of England or America<sup>9</sup>. Boyd’s draft Code, after some modification, was adopted by the EIS as the first code of conduct for its members<sup>10</sup>. The first step towards achieving a professional status for the teaching profession, Boyd argued, was for teachers to prove their worth as professionals through the development of expertise and their ability to improve the efficiency of their profession. Boyd thought that this could be accomplished through the requirement for every teacher in this new profession to possess a University degree in Education<sup>11</sup> and through the greater

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<sup>3</sup> Boyd, *Life Story*: 138.

<sup>4</sup> Boyd, *Life Story*: 125.

<sup>5</sup> Ibid.

<sup>6</sup> William Boyd, *Measuring Devices in Composition Spelling and Arithmetic*. (London: George G Harrap & Company Ltd, 1924).

<sup>7</sup> Boyd, *Life Story*: 125.

<sup>8</sup> Robert Anderson, ‘The History of Scottish Education, pre-1980’. In *Scottish Education*, ed. Bryce & Humes: 215-24.

<sup>9</sup> The National Committee of Inquiry into Higher Education, ‘Scottish Higher Education’, In ‘Report of the Scottish National Committee’, Leeds University, <http://www.leeds.ac.uk/educol/ncihe/> (accessed November 27, 2009).

<sup>10</sup> Boyd, *Life Story*: 125.

<sup>11</sup> Robert E Bell. *Educational Studies in the Scottish Universities, 1870-1970*. PhD Thesis, Open University, 1986.

involvement of teachers in research, which would have the dual result of increasing their knowledge and expertise and enabling them to improve their teaching methods and techniques<sup>12</sup>.

Once again Boyd's ideas found a solid footing. A major restructuring of teacher training in Scotland had meant that every university graduate after 1906 wishing to become a teacher was required to undertake a further course of professional training, as Boyd himself had done. Potential teachers were encouraged to undertake a university education and, by 1920, 49% of men and 12% of women teaching in Scotland were graduates, compared to 15.5% and 5.3%, respectively, in England. The strength of this movement towards a graduate profession and the desire to achieve professional status was reflected in the figures from 1938: 70% and 32% respectively (again, compared to England's 16% and 14%)<sup>13</sup>. The development of the B.Ed degree in Edinburgh and its mirror, the Ed.B, in Glasgow, which Boyd was instrumental in founding – even teaching a class of one in the first year just to get the degree onto the University's Calendar – was crucial in raising the status of the teaching profession. Both courses – postgraduate courses designed specifically for teachers – were world-renowned for their in-depth training in educational theory and, more significantly, research (including statistical) techniques. The courses attracted talented teachers from Scotland and around the globe<sup>14</sup>. B.Ed and Ed.B graduates went on to take up some of the most influential positions in education in their countries, within university departments, educational administration and within teacher training institutions<sup>15</sup>.

Boyd's ideas echoed those of parallel movements throughout the world as educationists became increasingly aware of the importance of educational research as a means of improving educational systems. Educational research itself originated from the work of German scholars, whose attempts to measure aspects of mental activity formed the roots of experimental pedagogy. Scholars travelled from all over the world to study under this experimental tradition and psychological laboratories, straddling the disciplines of education and psychology, were set up across Europe<sup>16</sup>. In the United States of America, the main foci of educational research in the early decades of the 20<sup>th</sup> Century were the development of educational measurement and the use of research for the practical service of education. 'School surveys' had been carried out since the turn

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<sup>12</sup> Boyd, *Life Story*: 123.

<sup>13</sup> Rosemary Wake, 'Research as the Hallmark of the Professional: Scottish Teachers and Research in the Early 1920s', *Scottish Educational Review*, Vol. 20, No. 1, (1988): 42-51.

<sup>14</sup> Robert E. Bell, Interview with Ian Deary and Martin Lawn held on 22<sup>nd</sup> May 2007 at Moray House, University of Edinburgh; Martin Lawn, Ian Deary and David Bartholomew, 'Embedding the new science of research: the organised culture of Scottish educational research in the mid-twentieth century', *Paedagogica Historica*, (in press).

<sup>15</sup> Ibid.

<sup>16</sup> John Nisbet, 'How It All Began: Educational Research 1880-1930', *Scottish Educational Reviews*, Vol. 31, No. 1, (1999): 3-9.

of the century by educational administrators wishing to improve the efficiency of their schools. Educational administration was rapidly developing as a distinct discipline with research bureaus springing up across the country to co-ordinate these activities<sup>17</sup>. The American Educational Research Association was founded in 1916, mostly from members of the existing research bureaus, to encourage scholarly inquiry into education and its processes and to promote the dissemination of its results. Concurrently, leading American educators such as Lewis Terman and Edward Thorndike were developing tests of ability for use in schools and beyond. Initially designed to identify individuals at the lower end of the cognitive ability continuum, mental ability tests had gained popularity as a means of differentiating between all individuals after the development, during the First World War, of the Army Alpha and Beta tests by some of the leading figures in the new discipline of psychology. Terman developed many group and individual achievement tests and was, by the 1920s, the undisputed leader in the field. By 1922, testing was viewed as being the means by which educational psychologists could help shape school practices and educational policy, and educational achievement tests proliferated alongside tests of general intelligence<sup>18</sup>. Elsewhere, educational research was also gaining momentum. In Australia, research was promoted by a small band of talented and productive researchers in Sydney and Melbourne. These researchers focussed on four main areas: child study, history of education, school achievement and mental testing, and were heavily influenced by the work of leading figures across the world including Germany, Teachers' College, Columbia, and the UK<sup>19</sup>. The Australian Council for Educational Research was founded in 1930, the culmination of years of thought and planning on the part of leading Australian educators and the Carnegie Corporation of New York. Indeed, the Carnegie Corporation's philanthropy contributed to the formation of research councils in New Zealand and South Africa<sup>20</sup>, and enabled the International Examinations Inquiry of the 1930s to bring together leading educators from Europe (including Scotland) and America<sup>21</sup>.

In Scotland, educational research found support initially in the universities and training colleges. Many Scottish educators were well travelled and had experience of both the German experimental tradition and the more practical American approach, and Scottish educational research

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<sup>17</sup> Raymond Callahan, *Education and the Cult of Efficiency: A Study of the Social Forces That Have Shaped the Administration of the Public Schools* (Chicago: University of Chicago Press, 1962).

<sup>18</sup> Ellen Condliffe Lagemann, 'Technologies of Influence: Testing and School Surveying', in *An Elusive Science: the Troubling History of Education Research*, Ellen Condliffe Lagemann (Chicago: The University of Chicago Press, 2000): 71-97.

<sup>19</sup> W.F. Connell, *The Australian Council for Educational Research 1930-80* (Victoria, Australia: ACER, 1980).

<sup>20</sup> Brian Dockrell, *The Scottish Council for Research in Education 50th Anniversary, 1928-1978* (London: University of London Press, 1978); Martin Lawn, 'The Institute as Network: The Scottish Council for Research in Education as a Local and International Phenomenon in the 1930s', *Paedagogica Historica*, Vol. 40, Nos 5&6 (2004): 719-32.

<sup>21</sup> Martin Lawn, *An Atlantic Crossing? The Work of the International Examinations Inquiry, its Researchers, Methods and Influence* (Oxford: Symposium Books, 2008).

developed almost as a fusion of these two approaches<sup>22</sup>. The groundwork of nurturing a commitment to research in education within the teaching profession itself, and the EIS in particular, began around the time of the First World War. It was conducted primarily by Boyd, who was then Lecturer in Education at Glasgow University and part-time Principal Lecturer in Education at the Glasgow Teacher Training Centre, and Mr Neil Snodgrass, President of the EIS from 1916-1917 and later Principal Lecturer in Methods at the St Andrews/Dundee Training Centre. As a member of the Scottish Education Reform Committee (SERC) – set up to ensure the representation of educational opinion in the run up to the Education Act of 1918, and of which Snodgrass was also a member – Boyd had been an important contributor (alongside the leaders of the profession) to many lively debates in the preceding years over the future of education in Scotland. Boyd addressed this problem with enthusiasm. His position as being both inside (as an ex-schoolteacher and lecturer at the Glasgow Training Centre) and outside (as Lecturer at Glasgow University) the educational system meant that he had many original contributions to make: ‘I had an original mind... I had a special standing as a University man held in general esteem, thinking was my job in life and discussion a vital element in my mental make up’<sup>23</sup>. His involvement in the discussions on educational reform provided Boyd with a forum within which he could develop his own ideas: ‘In this situation I gradually found my own mind clearing. Here was a difficult problem: how to create the right professional spirit among this multitude of teachers’<sup>24</sup>. The influence of Boyd and like-minded individuals was evident from the SERC’s conclusions. In their 1917 report, the SERC highlighted the need for research as being as important and essential to the development and evolution of education as it was to industry. They distinguished between two types of research: theoretical research ‘of a general kind with no immediate reference to practice’<sup>25</sup>, which they argued was imperative in suggesting new ideas and which would best be conducted at the universities and training colleges; and practical research ‘directed to the solution of definite problems in educational practice’, which they proposed would best and even exclusively be carried out in the classroom. The importance and breadth of the latter was clearly stated:

There is not a subject in the school curriculum which could not be made to yield better results with a considerable economy of time and effort, if only the same careful methods of investigation were applied as are used by up-to-date business men with regard to industrial processes’<sup>26</sup>.

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<sup>22</sup> Martin Lawn, ‘The Institute as Network’ (see note 20).

<sup>23</sup> Boyd, *Life Story*, 126.

<sup>24</sup> Ibid.

<sup>25</sup> Scottish Education Reform Committee, *Reform in Scottish Education: Being the Report of the Scottish Education Reform Committee*. (Edinburgh: SERC, 1917): 80.

<sup>26</sup> Ibid.

The Committee went on to suggest several topics and methods of investigation, including finding out the age at which different subjects can be most profitably begun, the amount of time needed to produce the best results in any particular subject, and the importance of obtaining standards of performance in order to provide objective tests of progress. They also proposed the organisational steps required in order to encourage and enable research in the classroom – including the founding of a Research Committee of the Educational Institute, ‘composed partly of teachers... and partly of University and Training College lecturers acquainted with the methods and literature of research’<sup>27</sup>.

Prior to the SERC report’s publication in 1917, Boyd had presented the case for the development of research in education in Scotland at the EIS’s annual congress in Glasgow in 1916, during Snodgrass’s presidency. He argued that research was essential if the teaching profession was to progress and improve, but that Scotland ought not to confine the investigation of educational problems to staff at the universities or the Education Department. Rather, teachers themselves ought to become the experts. Boyd’s vision for the Research Committee reflected that of the SERC: it was of a collection of teachers and University and Training College lecturers familiar with the methods of research who would not only direct and conduct their own research but would engender a culture of mutual co-operation between themselves and the individual teachers of Scotland<sup>28</sup>. In 1919, the EIS formed its own Committee on Educational Research. The first Committee consisted of just a handful of core members: Boyd, Snodgrass, the General Secretary and Organising Secretary of the EIS, a representative from the Aberdeen Training Centre, and two schoolteachers. This membership was supplemented by carefully selected ‘experts’, who were co-opted in to give the Research Committee the best possible chance to achieve its goals. In the first year, during which much of the planning took place, these individuals included some of the most influential educational researchers in Scotland: James Drever, founder of the first Scottish pedagogical laboratory and, later, the first Professor of Psychology in Scotland; David Kennedy Fraser, Psychology lecturer at the Edinburgh Training Centre and a leading researcher in the treatment of mentally defective children; William McClelland, holder of the dual posts of Bell Chair of Education at St Andrews University and Director of Studies of the Dundee Training Centre from 1925 and, later, Executive Officer in charge of teacher training in Scotland; and Alexander Morgan, Principal of the Edinburgh Training Centre<sup>29</sup>. The Research Committee was welcomed and heralded by the EIS which, after all, had contributed several of its most senior officials to its membership. Snodgrass, a close friend and ally of Boyd’s, had high expectations for the Committee, expressing the hope that it would do for

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<sup>27</sup> *Ibid.*, 81.

<sup>28</sup> ‘Congress in Glasgow: Research in Education’. *Educational News*, Vol. 42, (Jan 5, 1917): 14.

<sup>29</sup> Rosemary Wake, *Events Antecedent to the Founding of the Scottish Council for Research in Education*. (M.Ed. dissertation, University of Edinburgh. 1984): 45a.

Scotland what other countries (most likely America) were doing for education<sup>30</sup>. The Committee was welcomed in an EIS editorial the same week:

It is no reproach to teachers to say that the need for educational research was never greater than it is at present. All applied sciences need constant and well-directed revision of their methods... It will be (the Committee's) privilege to suggest to the teachers of Scotland methods of research and subjects for investigation. It will be able to turn the diffused zeal of individual teachers into a definite energy of progression. No longer need the influence of successful pioneer work be confined to one small neighbourhood. Henceforth it will become the possession of all. We can all now do our share of the great work with greater zest and with a surer hope in the permanence of our labours... As the ex-President put it with force and exactitude: 'Research is the very life blood of a profession'. No one can say with truth that Scottish teachers are anaemic<sup>31</sup>.

## **The Research Committee**

Boyd and his Committee wasted no time in getting started. The Research Committee utilised the EIS's organ, the Scottish Educational Journal (SEJ), to enlist the help of teachers from all over Scotland. A weekly publication, the SEJ was sent to all members of the EIS – at the time the largest teaching body in Scotland of which the vast majority of teachers were members – and the Research Committee therefore had a captive audience. Boyd published an article<sup>32</sup> in the SEJ outlining the primary objectives of the Research Committee. He invited all teachers both to co-operate with the Committee's own work and to provide an account of any experimental work they themselves were doing, no matter how small or unstructured, in their own classrooms, for the Committee to then publish. The Committee, Boyd assured the teachers of Scotland, would provide expert guidance where necessary in any research work teachers wished to undertake. But it was the teachers themselves who were placed at the core of the Research Committee's activities and who were given the power to make or break the Committee right from the start:

The one condition of success is that it should be able to count on the co-operation of the whole profession. Realising this, the first question to which it has addressed itself has been: - what can be done to get teachers all over the country interested in educational experiment, and willing to give what help in it they can? Everything, the Committee is convinced, depends on the answer that is given to this question. If

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<sup>30</sup> 'EIS Meeting of Council: Committee on Educational Research'. *SEJ*, Vol. 2, (Oct 17, 1919): 698.

<sup>31</sup> 'Leaders: Freedom and Research'. *SEJ*, Vol. 2, (Oct 17, 1919): 701.

<sup>32</sup> William Boyd, 'Educational Research'. *SEJ*, Vol. 2, (Nov 14, 1919): 772.

every teacher is ready to do his or her bit, in the way of providing the material and service required, even at considerable personal trouble, if, further, those with the capacity and leisure for research are ready to develop and apply their talents in work for the Committee, there is no reason why the Institute should not in course of time make a substantial contribution to the sum of assured knowledge about education<sup>33</sup>.

The Research Committee firmly believed that this was possible and that research was already an integral, yet hitherto unrecognised and undeveloped, part of the work of many teachers in Scotland. This belief was reflected in their initial articles, which were unhesitating in their encouragement of small-scale research carried out by teachers in their own classrooms:

Many teachers may hesitate to dignify by the name research the quiet experiments and groping modifications of approved methods which they make from time to time in their desire for better and more satisfying results – to use that term in the wider and truer meaning. Yet these unrecorded experiments, successful and unsuccessful alike, are the real research. Every approved method and principle in education was once an unrecorded novelty. If fresh advances are to be made (*sic*), they will be made, not only and not chiefly in the training centres and lecture rooms, but more in the ordinary class room of the ordinary school, and by the ordinary teacher in the course of his ordinary work<sup>34</sup>.

While noble, the ideals of Boyd and his Committee were perhaps somewhat naïve. Fresh from the Reform Committee and with enthusiasm and ideas for engendering professionalism within teachers, Boyd and Snodgrass were, perhaps, guilty of overestimating the abilities and desires of their fellow teachers. Yet the Committee's initial investigations stemmed primarily from their desire – echoing the developments in educational administration in America – to demonstrate that teachers themselves could increase the pedagogical efficiency of their schools and, by doing so, demonstrate to the State that they were worthy of becoming a self-governing profession<sup>35</sup>. Perhaps they envisaged that the work of maintaining standards would be begun by the Committee but then continued by individual teachers conducting research in their own classrooms. Nevertheless, the co-operation of teachers was vital to the Research Committee's success and these early articles could be seen as a recruitment drive<sup>36</sup>.

### **The early projects – searching for standards in education**

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<sup>33</sup> Ibid.

<sup>34</sup> 'The Week: Experimental Research', *SEJ*, Vol. 6, (Aug 3, 1923): 535.

<sup>35</sup> Boyd, *Measuring Devices*.

<sup>36</sup> For an excellent example of this, see Boyd, *SEJ*, Nov 14, 1919: 772.

The Research Committee immediately set to work on several rather ambitious projects, given the limitations within which they were forced to work. The Committee had identified as being of primary importance the creation of standards with which teachers could compare their pupils in order to see how they were performing in relation to their peers. These standards were especially needed amongst pupils who were on the verge of moving up into secondary education, at what was called the 'qualifying stage'. Following the abolition of fixed standards in the elementary schools of Scotland, the 'Qualifying' examination was instituted to identify which pupils were of sufficient quality to proceed to the more advanced work of the secondary school. Although general requirements were dictated by the higher authorities, the decision as to the suitability of individual pupils for secondary education was largely in the hands of their class teacher and the existence of standards by which to compare pupils to the general population would be of great benefit to qualifying teachers<sup>37</sup>. Three core subjects of the school curriculum were decided upon for research: composition, spelling and arithmetic. Although the approach to the three subjects was by necessity different, all the investigations involved the Research Committee identifying suitable tasks for schoolchildren to complete and relied heavily on individual teachers volunteering to give these tasks under controlled conditions to these classes.

In Composition, three titles and precise instructions for the administration and scoring of the compositions were published in an article in the *SEJ* from February 27, 1920<sup>38</sup>. Teachers were implored to follow the instructions precisely in order to ensure as complete uniformity of conditions as possible and asked to send all compositions, along with details of when the class would be or had been presented for the Qualifying Examination, directly to Boyd. The response was both enthusiastic and impressive. A total of 4284 essays were sent to Boyd from 128 different schools spanning the length and breadth of Scotland<sup>39</sup>. Thanks to the enthusiasm and dedication of Mr William McClelland, Director of Education in Wigtownshire (Dumfries & Galloway) & himself a co-opted member of the first Research Committee, many examples came from small rural schools, resulting in a more geographically representative sample being obtained. Although concerns were raised that the standard of the compositions submitted may have been slightly higher than average due to the keenness of responding teachers and their desire not to submit substandard work that might reflect badly on their own teaching abilities, these were dismissed by Boyd. He argued that the wide variation in quality amongst the essays showed that any superiority in quality was slight. Indeed, Boyd almost trivialises the matter in deference to the more important issue of attaining a

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<sup>37</sup> Boyd, *Measuring Devices*.

<sup>38</sup> William Boyd, 'Standard Tests', *SEJ*, Vol 3, (Feb 27, 1920): 153.

<sup>39</sup> William Boyd, 'Fixing a Standard in Composition at the Qualifying Stage. I: What Has Been Done', *SEJ*, Vol. 3, (Aug 6, 1920): 623.

standard: ‘In any case it is not a bad thing that the standards of attainment for the profession should be set by reference to work slightly above rather than below the average’<sup>40</sup>. Then began the large task of selecting from the essays received those that were felt to be most representative of each of the grades assigned. First, Boyd and his team selected one in five of the essays submitted by each teacher, in rough proportion to the number of essays assigned by the teachers to each mark. The resulting 400 papers were then thoroughly mixed and made up into 8 bundles of 50. Each bundle was then given to a teacher who undertook to mark their own bundle before asking four other qualifying teachers to give an independent estimate. At this stage, teachers were asked to assign marks based on a normal distribution, assuming that most pupils would achieve a grade of Satisfactory with smaller numbers in the highest and lowest categories. Boyd then chose only essays written under one title – ‘A Day at the Seaside’ – as this was by far the most popular and the best-performing title given, and chose first those essays where there was consensus between the 5 markers on the mark given, and then those where there was the most disagreement (e.g. 4 out of 5 gave different marks).

It seemed to me that the one set of papers was likely to provide examples with sharply-defined characters such that one could say about them: “here are essays which are quite surely M.S. or S. or V.S.” as the case may be; and contrariwise that the other set was likely to contain outstanding examples of mixed character such as invariably cause disagreement in regard to mark value<sup>41</sup>.

The resulting 26 essays were then printed in the *SEJ* in June 1920<sup>42</sup> and teachers were asked to mark them on a seven-point scale and return their answers on a postcard directly to Boyd. 271 postcards were received, 83% of them from teachers of pupils at the qualifying stage or teachers with an intimate knowledge of qualifying work. The results were presented in the *SEJ* in August 1920<sup>43</sup>, followed by sample essays from each category and a commentary on why the essay deserved the mark given. Boyd concluded his series of articles by describing the difficulties presented in applying the scale produced to the classroom. Although not without its critics, Boyd’s work in composition does not appear to have gone unnoticed:

I was greatly pleased to have a letter from Cyril Burt saying contrary to his expectations I had made a convincing job of the commentary and that it would be in his opinion a real help to teachers doing their own marking<sup>44</sup>.

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<sup>40</sup> Ibid.

<sup>41</sup> Ibid.

<sup>42</sup> ‘Educational Research Tests: Composition’, *SEJ*, Vol. 3, (Jun 4, 1920): 458 & 460-1.

<sup>43</sup> William Boyd, ‘Fixing a Standard in Composition at the Qualifying Stage. II: The Collective Marking of Selected Essays’, *SEJ*, Vol. 3, (Aug 13, 1920): 643-4.

<sup>44</sup> Boyd, *Life Story*: 121.

The sheer scale of the Research Committee's study into composition is remarkable, especially given the limited resources available to them. Although the planning, execution and analysis of the study was undertaken by only a few individuals from within the Research Committee, the study achieved its aim of giving teachers participation in and control over assessment standards through the sharing of professional expertise.

Boyd and his colleagues then turned their attention to Spelling<sup>45</sup>. It was their opinion that, of all the core subjects taught to schoolchildren, spelling was the most ambiguous and, as such, placed unnecessary strain on teachers. Teachers were required to teach a great many words to children in order to live up to the examination requirements. It was the Committee's aim to create a definitive list of words which children at the qualifying stage should, in the opinion of the teachers, be able to spell. The contribution of teachers was therefore crucial and instrumental to the success of the Spelling List. Boyd initially compiled a list of 750 words from others' published lists of common words in the English language. The easiest words were then eliminated from the list, words added from the compositions sent in during the last inquiry, and the resulting list of 1000 words tested on a group of qualifying pupils. Additional words were also added from a list compiled in the American town of Duluth. The final list was then edited by Robert Comline, the Rector of the Knox's Institute, Haddington, and future convener of the Research Committee, who added some words that his experience had taught him were of real value. The Committee then mixed the words up and sorted them into 30 sets of 25 words. Teachers were invited to put the 30 lists to a systematic use over a period of 10 weeks, one list a day three days a week, following strictly the instructions published in the *SEJ*. They were asked to make a note of which words were spelled incorrectly each day and to correct them. Boyd intimated the Committee's intention to produce a second list of words that, while generally spelled correctly by qualifying pupils, were often misspelled by younger children and required special attention from the teachers. Although the burden on teachers was considerable, the Committee was never short of volunteers and even requested new teachers to join in after the initial 10 week period:

Dr Boyd desires to thank all those who have returned Spelling Lists to him, and hopes that none will be kept back because the teacher is dissatisfied with the results. It takes all sorts of results to make an average, and the withholding of the work of weak classes will tend to set the standards too high....It is desirable for statistical purposes that a fresh lot of teachers should work through the original Spelling Lists during the weeks after Easter<sup>46</sup>.

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<sup>45</sup> William Boyd, 'E. R. Tests: Spelling', *SEJ*, Vol. 4, (Jan 14, 1921): 28.

<sup>46</sup> 'The Week: E.R. Tests – Spelling Investigation', *SEJ*, Vol. 4, (April 1, 1921): 233.

The complete list of 750 words was published in the SEJ in January 1921<sup>47</sup>, and teachers were invited to comment on the list, noting which words ought to be omitted and making suggestions for words to be added. These suggestions were compiled to create a supplementary list of words, which was again published in the SEJ for the use of those teachers already taking part in the longer investigation<sup>48</sup>.

The Committee did not stop there. It had always been their aim to compile additional lists for children of different ages and the initial publication in 1923 of the Standard Spelling List included 1150 common words which should be spelled correctly by all children of 10; 650 words worth knowing which present difficulties to pupils of 10 and 600 words worth knowing which present difficulties to pupils of 12<sup>49</sup>. The Longer Spelling List, containing many additional words, was published shortly after<sup>50</sup>. Both Lists were published under the authorship of Boyd, and yet he was not precious about his work, inviting teachers to offer their opinions on the List before the publishers were to ‘stereotype it’:

I shall esteem it a favour if teachers who have used (The Longer Spelling List) will let me have a note of any errors or omissions they may have discovered, or will make any suggestions for its improvement in minor details before this is done<sup>51</sup>.

It was an ambitious project, not least because its every move was reported in the pages of the SEJ and was therefore in the public domain. Any mistakes would have been costly both to Boyd and to the future of educational research in Scotland. Its success both in enlisting the co-operation of teachers everywhere and in achieving standards in spelling was probably due as much to Boyd’s infectious enthusiasm and inclusive writing style as it was to the commitment and dedication of hundreds of teachers from all over Scotland.

The Research Committee’s work in Arithmetic was more experimental. Teachers were invited to apply to Boyd for a set of arithmetic questions suitable for qualifying pupils that had been set by the Committee<sup>52</sup>. Again, instructions were given to ensure as much uniformity as possible and teachers were asked to note how many of the problems set their pupils were able to complete in the time available<sup>53</sup>. In total, results for the tests were returned from 3236 pupils in 133 schools

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<sup>47</sup> William Boyd, ‘E. R. Tests: Spelling Investigation (I)’, *SEJ*, Vol. 4, (Jan 21, 1921): 33-4.

<sup>48</sup> William Boyd, ‘E. R. Tests: Spelling Investigation (II) Supplementary List’, *SEJ*, Vol. 4, (April 8, 1921): 264.

<sup>49</sup> William Boyd, *The Standard Spelling List: 2400 Common Words Which Every Boy and Girl Should be able to Write Down Correctly*. (London: George G Harrap & Company Ltd, 1923).

<sup>50</sup> William Boyd, *The Longer Standard Spelling List: 3500 Common Words Which Every Boy and Girl Should be able to Write Down Correctly*. (London: George G Harrap & Company Ltd, 1926).

<sup>51</sup> William Boyd, ‘The Longer Standard Spelling List’, *SEJ*, Vol. 9, (Nov 19, 1926): 1112.

<sup>52</sup> Boyd, *SEJ*, Feb 27, 1920: 153.

<sup>53</sup> William Boyd, ‘Standardising Arithmetic at the Qualifying Stage: II-The Tests’, *SEJ*, Vol. 4, (Sept 16, 1921): 674.

from practically every county of Scotland and representing every type of school. As expected, the results were normally distributed. The tests covered the main mathematical operations required of pupils at the qualifying stage, and the Committee then created standardised tests designed for application to all pupils in Scotland, although it is doubtful that these were ever implemented in an organised fashion. The results were once again compiled by Boyd and published in the *SEJ*, complete with an aside at the end of the results article:

For the sake of enlightening those who imagine that educational research can be done at any odd time, it is worth stating that it took me three full weeks' work, doing nothing else, to make the calculations, the results of which are given in these tables<sup>54</sup>.

Boyd answered criticisms of the tests employed in his concluding remarks, describing in detail the development of the tests and their intended use, and freely admitting their limitations. In 1924 Boyd rewrote the methods and results of these three investigations for a book for use by all teachers, 'Measuring Devices in Composition, Spelling and Arithmetic'<sup>55</sup>. This, alongside the Spelling Lists, further publicised and popularised the work of the Research Committee amongst teachers in Scotland and beyond. Of all the projects of the Research Committee, it is the work in spelling that endured the longest. The Spelling Lists, published by the EIS and compiled by Boyd, sold upwards of a million copies – mostly in Scotland but many further afield – and remained profitable for 20 years. Boyd brought out a revised List in 1946<sup>56</sup>, and this was equally profitable, providing its author with regular source of income for at least another decade<sup>57</sup>.

While remarkable in scale and execution – particularly given the small size of the Research Committee and the fact that most of its members were teachers, with many and distracting calls on their time – these initial investigations of the Research Committee appear to have had limited impact beyond the EIS and the many teachers who were involved. Despite Boyd's aim to convince the State that teachers were able to increase the efficiency of the schools (and thereby govern their own profession) through the institution, by teachers, of objective methods of measuring school results, there is no evidence that the standards of attainment created through these investigations were ever instituted on a national level. This is perhaps unsurprising, given the lack of involvement of the local Education Authorities – the decision-makers at the time – and the lack of adherence to the rigorous standards of sampling required of scientific investigation. Boyd himself acknowledges this flaw:

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<sup>54</sup> William Boyd, 'Standardising Arithmetic at the Qualifying Stage: III-Standard Results', *SEJ*, Vol. 4, (Sept 30, 1921): 722.

<sup>55</sup> Boyd, *Measuring Devices*. See note 7.

<sup>56</sup> William Boyd, *The New Standard Spelling List*. (London: George G Harrap & Company Ltd, 1946).

<sup>57</sup> Boyd, *Life Story*, 123.

Perhaps it should be added that in the actual conduct of the various inquiries that followed the remoter ideal speedily passed out of mind, and the thought of helping teachers in the daily work of the classroom by the improvement of teaching methods and by providing means for the more accurate estimation of the results of their work became the main inspiration of research. I should like to think that whether or not that part of the work which has been brought to completion and is now presented for the consideration of administrators and teachers serves its first purpose in any degree, it will be found of real service in this more modest way<sup>58</sup>.

It seems likely that the projects were, in this latter case, a success: the popularity of the Spelling Lists amongst individual teachers suggests that it met a need above and beyond that of merely providing a classroom test, and the book on Measuring Devices gave teachers an opportunity to explore their own marking strategies<sup>59</sup>.

These early projects of the Research Committee fell rather short of upholding Boyd's ideal of nurturing a profession of teachers carrying out their own, original research. Whereas the contributions made by teachers to the three projects indicate that Boyd was successful in involving teachers in research, the teachers themselves were, if anything, research assistants rather than autonomous researchers. Although the proliferation of research-related articles within the pages of the SEJ suggested a real effort to place research high on the agenda of teachers across Scotland, there is little evidence to suggest that individual teachers were conducting their own, original, smaller scale research<sup>60</sup>. By 1924 even the enthusiasm of teachers towards the Research Committee's work appears to have waned:

At the beginning of the year, the Research Committee made a general request... for information concerning the working of the new schemes of promotion at the qualifying stage in different counties. The response to this request, like the response to some other requests made by the Committee, was not very great<sup>61</sup>.

Nevertheless, the Committee continued to encourage teachers to keep research in their minds and championed its use in tackling difficult educational problems. They contributed to current debates on teaching methods:

In the course of the interesting debate on subtraction methods which has been going on in the columns of the Journal for some weeks back, the desire has once or twice been expressed that the Research Committee should take a hand in the game. The Research Committee while appreciating the compliment and anxious to take

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<sup>58</sup> Boyd, *Measuring Devices*, 7.

<sup>59</sup> Boyd, *Measuring Devices*.

<sup>60</sup> Wake, 1988. See note 13.

<sup>61</sup> William Boyd, 'An Inquiry by the Research Committee with Regard to Promotion to Post-Qualifying Courses: I. A Summary Account of the Present Arrangements', *SEJ*, Vol. 7, (Dec 19, 1924): 1178-9.

advantage of the interest stimulated by the discussion to get some definite progress made with the solution of the questions at issue has so much work under way that it can only undertake this new task if teachers generally are willing to give substantial help<sup>62</sup>.

Boyd goes on to describe his ideas for the best methods of teaching subtraction but again reiterates:

It is quite possible to settle some of the questions raised if a large number of teachers are prepared to join in. Will those schools who are willing to give tests to a young class... and to an older class... intimate the fact to Mr R Bennett Miller... But help will be welcomed from every quarter<sup>63</sup>.

Although there are no further articles on this topic by Boyd within the SEJ, the Research Committee's work on the teaching of subtraction and arithmetic in general in the elementary school continued for several years<sup>64</sup> and was supplemented by work on the teaching of spelling<sup>65</sup>.

Around this time, the Research Committee embarked on a new and rather more successful tactic for engendering an enthusiasm for research amongst Scottish teachers. The two publications resulting from the earlier studies, the Spelling List and 'Measuring Devices in Composition, Spelling and Arithmetic', were making a profit. Boyd elected that this should go back to the EIS (who, after all, funded the research and indirectly provided the research assistants in the form of teachers) through the foundation, in 1925, of an essay prize for teachers and students in training. Devised as an attempt to foster private research, the topics on which teachers and students at the Training Colleges were invited to submit theses were qualitatively different: the educational history of a Scottish district, parish or school for the teachers, and some aspect of educational work involving personal observation and inquiry for the students. The Committee received a large number of theses from teachers and students alike<sup>66</sup> and the prize winners received a standing ovation at the EIS's AGM in June 1926<sup>67</sup>, indicating that the efforts of the Research Committee were welcome. The essay competition was declared a success and prizes offered for the next academic year. The topic for teachers was given as 'Economy of Time in School Work', and articles on recent inquiries on the issue conducted in America were published in the SEJ to help inspire teachers<sup>68</sup>. The essay competition continued for many years – funded by the Council of the

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<sup>62</sup> William Boyd, 'The Best Method of Subtraction', *SEJ*, Vol. 7, (Mar 21, 1924): 277-8.

<sup>63</sup> *Ibid.*, 278.

<sup>64</sup> Peter Lowson, 'Research in Methods of Teaching Subtraction', *SEJ*, Vol. 12, (Oct 11, 1929): 1063.

<sup>65</sup> William Boyd, 'A 'Research' Inquiry Regarding the Teaching of Spelling: II. Still at the First Step', *SEJ*, Vol. 9, (Jan 15, 1926): 60-1.

<sup>66</sup> 'The Week: Essay Competition', *SEJ*, Vol. 9, (July 2, 1926): 691.

<sup>67</sup> 'Annual General Meeting Report'. *SEJ*, Vol. 9, (Sept 24, 1926): 933.

<sup>68</sup> 'The Week: The Research Committee's Essay Scheme for 1926-27: A Preliminary Announcement', *SEJ*, Vol. 9, (Sept 24, 1926): 922.

EIS after the first couple of years – and appears to have drawn followers by directly involving and rewarding teachers and students in research work.

### **The Research Committee's work on examinations and tests**

Having attempted to identify standards for attainment in some of the core subjects of elementary teaching, the Research Committee then moved onto the problem that was not only at the core of Boyd's master plan for nurturing the professional status of teachers but was proving most troublesome for teachers in Scotland at the time: assessment. It was the Research Committee's conviction that by gaining control over the assessment of their pupils, rather than relying on outside experts to devise and manage examinations and tests, teachers would be taking a crucial step towards the freedom and self-determination of their profession<sup>69</sup>. Boyd summarised the problems facing teachers succinctly in a series of articles published in the autumn of 1924 entitled 'Research Work in regard to Examinations and Tests'<sup>70</sup>. Using data from both the Research Committee's own work and the results of school examination (many taken from the Times Educational Supplement), Boyd argued that the primary aim of examinations was to accurately reflect a child's level of ability and/or attainment in certain subjects by producing the same results regardless of the circumstances:

The ideal of any examination system is that when for any purpose an examination has to take place the same candidates should pass (or fail) whatever the test, or whoever the marker, and, perhaps one might add, whatever the physical and mental state of the candidate<sup>71</sup>,

but that discrepancy in results between tests suggested that the present examinations were failing in this task and in fact 'in a considerable proportion of cases passing or failing is such a haphazard business that there can be no assurance that the right people are passed or failed'<sup>72</sup>.

Boyd then goes on to describe some of the examination methods recently proposed by various educationists around the world as alternatives to the traditional examinations currently used in Scotland. He argues that Scottish teachers ought to increase their understanding of the examination process and subsequently alter the existing arrangements for a better fit for purpose. To Boyd, the exploration of examination methods was key to both the Committee's research work and the development of the teaching profession, and he states this explicitly in his concluding remarks:

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<sup>69</sup> William Boyd, 'The Research Committee of the Educational Institute of Scotland', *The New Era*, Vol. 7, (1926): 152-3.

<sup>70</sup> William Boyd, 'Research Work on Examinations and Tests: I. The Examination Problem', *SEJ*, Vol. 7, (Jan 11, 1924): 41-3.

<sup>71</sup> William Boyd, 'Research Work on Examinations and Tests: II. The Examination Paper', *SEJ*, Vol. 7, (Feb 1, 1924): 108-10.

<sup>72</sup> William Boyd, 'Research Work on Examinations and Tests: IV. The Improvement of Ordinary Examination Methods', *SEJ*, Vol. 7, (Oct 10, 1924): 938-40.

Let it be remembered, further, that it is on the possession of technique based on scientific thought and inquiry that professional status depends. By our attention to the problems of technique, whether in examinations or in other matters, we teachers will determine whether we are to remain a set of superior unskilled labourers whose 'mystery' any ordinarily intelligent person could soon penetrate or are to rank with the recognised professions in virtue of a special culture and a distinct technical knowledge of our own. That is the spirit that animates our research work<sup>73</sup>.

The initial focus of the Research Committee's practical investigations into examinations and tests was on the means by which teachers could identify which of their pupils would be suitable for promotion to post-qualifying courses, i.e. the secondary school. After conducting a survey of the existing arrangements across all Education Authorities, Boyd published the results in a series of articles in the *SEJ* in 1924-1925, with sufficient time between each article to allow for teachers with views on the matter to make these known to the Research Committee. In the final article Boyd discusses Intelligence Tests and their use, a topic under much debate in education at the time<sup>74</sup>, and here his distrust of any form of external assessment comes through:

The obvious advantage of the published tests is that before being put on the market they have been carefully tested under varied conditions by their authors and are usually furnished with norms for different ages. The drawback, apart from the cost of them, is that they are apt to appear a kind of psychological magic which in some mysterious way that plain folks like teachers may not question sorts out pupils into their intellectual grades with a certainty of rightness that mere examinations cannot give... Before the standard tests can be right in this respect teachers must be able to make their own tests. This is all the more necessary because the novelty and uncommonness of the tests tend to upset the pupils by over-stimulating some and disturbing others<sup>75</sup>.

Boyd expresses admiration for and appreciation of the work of individuals such as Godfrey Thomson, of Newcastle, Dr Ballard and other academics in preparing these standardised intelligence tests. However, he suggests that the discrepancies between individual pupils' results on these tests and their performance in the examinations set by the schools of Education Authorities themselves limit their usefulness in accurately assessing and predicting pupils' performance and abilities. But, rather than advocate that teachers scrap either set of tests, Boyd urges teachers to become their own test-makers by increasing their understanding of the workings of intelligence

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<sup>73</sup> *Ibid.*, 940.

<sup>74</sup> See for example: 'The Week: Intelligence Tests for Leaving Certificate Candidates', *SEJ*, Vol. 9, (June 18, 1926): 597-8.

<sup>75</sup> William Boyd, 'An Inquiry by the Research Committee With Regard to Promotion to Post-Qualifying Courses: V. Intelligence Tests', *SEJ*, Vol. 8, (June 26, 1925): 675.

tests and adjusting their own examinations to increase the correlation between the two. This rather ambitious proposition epitomises his, and the Research Committee's, belief that teachers were willing and capable of taking control of classroom assessment and, eventually, their profession. It was not unachievable – all teacher training in Scotland had from the early 20s included a compulsory course on educational testing. By way of demonstration, Boyd then created his own tests of ability for the Leaving Certificate Stage, which aimed to 'furnish secondary teachers with a valuable new instrument for the estimation of the mental quality of their pupils', to complement ordinary school examinations<sup>76</sup>. Teachers were invited to apply for these in order to both gain ideas for their own use and to provide feedback on the tests to aid their development, and a small number of teachers were invited to take part in a trial run of the tests with pupils of differing abilities.

Boyd's belief in teachers as their own examiners and in the importance of a reassessment of the examination system was extremely influential in both Scotland and beyond. He has been credited with the popularisation of testing amongst teachers<sup>77</sup>, and has even been described as being instrumental in the birth of the 11-plus examination<sup>78</sup>. When the New Education Fellowship – an alliance between proponents of the ideas of the Theosophical movement<sup>79</sup> – was formally constituted in 1921, initially within Europe but quickly spreading to the rest of the world, Boyd naturally found himself drawn to it and was the first president of its Scottish branch. Boyd's reputation both as an advocate for educational reform and as an excellent speaker on educational issues (including in the blossoming field of psychology) spread beyond Scotland and even stretched across the Atlantic, fuelled no doubt by his involvement in the New Education Fellowship and by his prolific writing. By the time of the NEF's 1929 conference in Elsinore, the first that Boyd attended, Boyd's reputation had grown to such an extent that he found himself almost the 'star turn'<sup>80</sup>. Boyd was invited three times to lecture at prestigious universities and training colleges in the United States of America – the University of Illinois in the early 20s, Ohio in 1925-26 and Teachers' College in Columbia in 1930-31. Although Boyd's commitments in Glasgow resulted in his turning down the first two, he accepted the last and, at the age of 55, spent a year at Teachers' College. It was there, during a conversation with Paul Monroe, that Boyd expressed enthusiasm for Monroe's fledgling International Examinations Inquiry (IEI)<sup>81</sup>. This link was forged back in Scotland on Monroe's subsequent visit, where a deal was struck—between the Carnegie Trust, the

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<sup>76</sup> 'The Week: Intelligence Tests for Leaving Certificate Candidates', *SEJ*, Vol. 9, (June 18, 1926): 597-8.

<sup>77</sup> John C. Stocks, 'Objective Bees in Psychological Bonnets: Intelligence Testing and Selection for Secondary Education in Scotland Between the Wars', *History of Education*, Vol. 29, No. 3, (2000): 225-38.

<sup>78</sup> Personal communication from Philip Vernon to Robert Bell, Bell interview, 2007. See note 14.

<sup>79</sup> William Boyd & Wyatt Rawson, *The Story of the New Education*. (London: Heinemann, 1965).

<sup>80</sup> Boyd, *Life Story*, 139.

<sup>81</sup> *Ibid.*, 186.

EIS and the new Scottish Council for Research in Education (SCRE)—to conduct what remains the largest population-wide survey of intelligence ever conducted, the Scottish Mental Survey of 1932<sup>82</sup>. Although Boyd was not present at this meeting, his involvement with the IEI continued and he spoke with conviction at their 1935 conference about the work of both SCRE and the EIS's Research Committee in investigating examination methods, singing the praises of Scottish teachers and their education system as he did so:

...in all this research about examinations, we have the teaching profession behind us... in Scotland a very considerable proportion of the elementary teachers are university graduates, and that our secondary schools are staffed with honours graduates, people of really very high intellectual quality and attainments... obviously it is a really big asset in this question of examinations to have a body of teachers of this mental calibre<sup>83</sup>.

### **The Research Committee as teachers of research**

The Research Committee's investigations succeeded in sensitising teachers to research work<sup>84</sup> and the extent of co-operation by teachers in the early studies shows that their work was both welcomed and valued. Indeed, the promotion of research in education amongst the teachers in Scotland was at the core of the Committee's endeavours for most of the 1920s, and even Boyd acknowledged that, despite their ambitious plans, this was the best they could hope to achieve:

The Committee is under no delusions about the limitations of its work. There are too few teachers in Scotland competent to do original research, and those few are too busy people to carry research as far as it should be carried, to allow us to hope for any great achievement. More important than results is the effect of the Committee's work in educating teachers and making them realise the need for a scientific basis for the business of the school<sup>85</sup>.

Underlying all of the work of the first 10 years of the Research Committee was the desire to engender in Scottish teachers an enthusiasm for and understanding of research, and to encourage them to apply this knowledge in their own classrooms: 'With this in view the articles in the Scottish Educational Journal on the Committee's undertakings, besides reporting the results, have dwelt at length on the ideals and technique of research'<sup>86</sup>. Nowhere was this more apparent than in one of

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<sup>82</sup> Scottish Council for Research in Education. *The Intelligence of Scottish Children: A National Survey of an Age-group* (Publications of the Scottish Council for Research in Education V). (London: University of London Press, 1933).

<sup>83</sup> Paul Monroe, (ed.) *Conference on Examinations under the auspices of The Carnegie Corporation, The Carnegie Foundation and The International Institute, Teachers College, Columbia University*. (New York: Bureau of Publications, Teachers College, 1935).

<sup>84</sup> Wake, 1984. See note 29.

<sup>85</sup> William Boyd, 'The Research Committee of the Educational Institute of Scotland', *The New Era*, Vol. 7, (1926): 152.

<sup>86</sup> *Ibid.*

their later investigations, ‘A Research Inquiry regarding the teaching of spelling in which all teachers are invited to take part’<sup>87</sup>. Unlike their previous projects, this had the specific aim of teaching the teachers – a form of distance learning, almost<sup>88</sup>. The intent was clear right from Boyd’s opening line:

The prime object of the present inquiry is not the discovery of new truth in regard to the teaching of spelling, but a demonstration of research methods for the enlightenment of teachers desiring further knowledge of the possibilities of experiment in the advancement of educational science<sup>89</sup>.

Boyd then went on to describe in detail an experiment conducted by a French teacher and reported in a French journal for elementary teachers, which teachers were invited to consider critically and to then devise a similar experiment – complete with a fresh list of 25 words – for use in their own classroom (taking care to avoid the defects of the French experiment), and to read a couple of carefully selected articles on the teaching of spelling. Teachers were asked to send their suggestions and spelling lists to the Research Committee and, although only a very small number responded, Boyd and his colleagues were able to combine these with their own experiences as teachers to compile a collection of 200 words to be used in the experiment. The precise instructions for completing the experiment were published at intervals of between one and two months in the *SEJ*, with teachers again encouraged to address any comments or criticisms to the Research Committee. The Inquiry relied heavily on the co-operation of teachers and there were suggestions that perhaps the response was not as great as Boyd had hoped. Boyd ended the second article with a plea: ‘Please remember that this is a “Community” job, and help!’<sup>90</sup> and the fourth article by stressing the important of co-operation: ‘In due season a report will be submitted on the results of the inquiry. Its value will depend largely on the number of teachers willing to co-operate’<sup>91</sup>. In the end the response to the Inquiry, although lower than their previous investigations, was sufficient to draw some conclusions, and Boyd expressed particular delight that one of the responses was from a school in Staffordshire ‘the headmistress of which has been a faithful reader of the Journal for many years, and has been keenly interested in the work of the Research Committee’<sup>92</sup>. Although the results, as predicted, only confirmed what was already known, the hope remained that the Inquiry would have gone some way towards enabling and encouraging teachers to conduct their own individual

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<sup>87</sup> William Boyd, ‘A ‘Research’ Inquiry Regarding the Teaching of Spelling: I. The First Step’, *SEJ*, Vol. 8, (Nov 20, 1925): 1251-2.

<sup>88</sup> Wake, 1988. See note 13.

<sup>89</sup> Boyd, *SEJ*, Nov 20, 1925: 1251.

<sup>90</sup> Boyd, *SEJ*, Jan 15, 1926: 61.

<sup>91</sup> William Boyd, ‘A ‘Research’ Inquiry Regarding the Teaching of Spelling: IV. The Experiment’, *SEJ*, Vol. 9, (April 30, 1926): 451

<sup>92</sup> William Boyd, ‘A ‘Research’ Inquiry Regarding the Teaching of Spelling: V. The Results of the Inquiry’, *SEJ*, Vol. 9, (Nov 12, 1926): 1083.

research: ‘Even if we have not succeeded in making any very startling discoveries we may have advanced the cause of professional research a little by the demonstration of research methods’<sup>93</sup>.

Although it is unclear how many teachers, if any, approached the Research Committee during this time either for advice or to furnish them with details of their own small-scale research studies<sup>94</sup>, Boyd and his colleagues had an important role to play in ensuring that research was high on the agenda of the EIS and, if not at the forefront, then certainly within Scottish teachers’ minds. Local research committees appeared all over Scotland and reports of their activities – whether these were organised events where the leading researchers in education from the Universities and Training Colleges talked about their own theoretical and practical research into intelligence, mental testing or teaching ‘mentally defective’ children, or reports of their own medium-sized research projects – appeared increasingly often in the pages of the *SEJ*, even long after the Research Committee itself ceased to be. The Research Committee of the Glasgow Local Association of the EIS (Boyd had been President at one time) conducted several studies attempting to devise standardised tests of spelling and arithmetic, and to investigate the effects of demographic and social factors on pupils’ performance on these tests across different schools in the Glasgow area<sup>95</sup>. The East Lothian Research in Education Committee held regular meetings with invited speakers—at which were discussed educational problems such as teaching backward children, curricular changes, infant methods, and the use of intelligence tests<sup>96</sup>—and themselves conducted research in a variety of areas and using varying techniques: infant methods, retardation, visual aids, book reviewing, citizenship, health and methods<sup>97</sup>. In addition, series of articles on educational research appeared in the pages of the *SEJ*, many (but significantly not all) of them authored by lecturers at the training colleges or universities. John L Hardie, Lecturer in Psychology at the University of Glasgow (and later Director of Studies at the Aberdeen Training Centre) described an experiment to evaluate the use of Spearman’s measure of intelligence within a large secondary school<sup>98</sup>. The same year, James A Masterton, a teacher, contributed a series of articles on an experiment on the teaching of reading in an elementary school<sup>99</sup>. Although limited information is available on how these studies were conducted or under what auspices, there was clearly a sufficient level of interest in

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<sup>93</sup> Ibid: 1085.

<sup>94</sup> Wake, 1988. See note 13.

<sup>95</sup> Alexander J. Belford, ‘Arithmetic Tests in Qualifying Classes’, *SEJ*, Vol. 19, (Nov 27, 1936): 1443-6.

<sup>96</sup> See, for example, ‘East Lothian Research in Education Committee’, *SEJ*, Vol. 32, (Nov 4, 1949): 712; and Education Areas – East Lothian, *SEJ*, Vol. 35, (May 9, 1952): 289.

<sup>97</sup> ‘Work of Research Groups’, *SEJ*, Vol. 37, (Dec 17, 1954): 804.

<sup>98</sup> John L. Hardie, ‘Intelligence Testing in the Secondary School’, *SEJ*, Vol. 12, (Aug 30, 1929): 916-7.

<sup>99</sup> James A. Masterton, ‘An Experiment on the Teaching of Reading in an Elementary School’, *SEJ*, Vol. 12, (Sept 27, 1929): 1020-1.

educational research to justify their presence in the SEJ, which was read by ordinary teachers all over Scotland.

Whereas the Committee may have had limited success in encouraging individual teachers to conduct their own, original, small-scale investigations, its early studies demonstrated to those involved in the field that large-scale research with a scientific basis could be carried out within the schools of Scotland, and that it could be conducted collaboratively. The close working relationships within the Research Committee between schoolteachers with an interest in research, the EIS and University and Training College ‘experts’ revealed a style of collaborative networking which was a template on which even larger studies could be based<sup>100</sup>. Perhaps more importantly, though, the spirit of co-operation which the Research Committee’s investigations engendered amongst teachers was vital to both its own success and that of a much larger body for enabling organised research in education that was by this time looming on the horizon: the Scottish Council for Research in Education<sup>101</sup>.

### **The Scottish Council for Research in Education**

By the mid-20s there was a growing feeling amongst members of the EIS and even within the Research Committee that, in order that Scotland could rise to the challenge set by Snodgrass and the Reform Committee back in 1917 and become world leaders in educational research, it would need to be conducted more scientifically and on a much larger scale<sup>102</sup>. Although remarkable in scale and execution and laying the groundwork for large-scale collaborative research, the Research Committee’s investigations lacked the rigorous sampling techniques and controlled conditions required by science and, as such, had limited impact both nationally and internationally. Boyd and the Committee had placed research firmly into the consciousness of the teaching profession, it had ‘performed excellent service in stimulating the interest of the teachers of Scotland in educational research and in familiarising them with the methods of investigation’<sup>103</sup>. Yet this increased interest had not manifested itself quite as Boyd may have hoped: whereas the teaching profession was certainly highly skilled and more than willing to co-operate in research, there was little evidence of teachers conducting their own, autonomous research. Boyd and the Research Committee were facing something of a paradox: an increasing enthusiasm amongst teachers towards educational research

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<sup>100</sup> Martin Lawn, ‘The Institute as Network’.

<sup>101</sup> Martin Lawn, Ian J Deary & David J Bartholomew. ‘Naïve, Expert and Willing Partners: SCRE in the International Examinations Inquiry’. In, *An Atlantic Crossing? The Work of the International Examinations Inquiry, Its Researchers, Methods and Influence*, ed. Martin Lawn. (London: Symposium Books, 2008):119-36.

<sup>102</sup> ‘Leaders: Young Teachers and Research’, *SEJ*, Vol. 11, (April 20, 1928): 423.

<sup>103</sup> Robert R. Rusk, *Research in Education*. (London: University of London Press, 1932): 26.

coupled with the knowledge that the vast majority of teachers were not endowed with the skills or, more importantly, the time to conduct their own small-scale investigations<sup>104</sup>. Critics of the Research Committee's approach argued that teachers were ill-equipped to ensure the adequate provision of experimental conditions within their classrooms, meaning that their research might not be generalisable across schools. In an address given at the EIS's annual Congress in Ayr in 1927, William A. F. Hepburn, Director of Education for Ayrshire, while emphasising the need for the entire teaching profession to be involved in research – right from the Universities through teachers and beyond to those in educational administration – urged caution:

The gift of teaching and the gift of research are distinct and comparable... the interested and enthusiastic teacher lacks as a rule the cold detachment required of a scientific enquirer. In addition these investigations all depend for their value on the application of a new and difficult technique, a knowledge of which is, so far as I know, as yet confined to only a few in Scotland<sup>105</sup>.

Yet it was acknowledged that, within the ranks of ordinary teachers in Scotland, were those who had the necessary skills to carry out research, and that these individuals ought to be nurtured, a point reiterated by the EIS's President, Mary Tweedie, in 1925:

...there are men and women in the schools of high academic attainment together with the necessary equipment and bias who, with great advantage to their work and to ours, could be attracted to research for a year or two, given the necessary endowment<sup>106</sup>.

Tweedie emphasised the importance of combining intellectual power with personal knowledge of schools and school children, and stressed the significance of research in raising the profile of Scotland:

We have stood largely aside with easy and ironical scepticism while other nations experimented for us...I have pointed the way to some patriotic individual or association who would do a great work, by the endowment of Research, to help Scotland to keep pace with other nations<sup>107</sup>.

A key player in pushing forward the idea of a national Research Council as a means of furthering educational research in Scotland was Dr James Steel, headmaster at Allan Glen's School, Glasgow, President of the EIS in the year 1925-1926 and himself a member of the Research Committee. It is

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<sup>104</sup> Mary A. Tweedie, 'Needs of the Moment: Educational Research. Presidential Address by Mary A Tweedie, at Annual Congress, Edinburgh, 30<sup>th</sup> Dec 1924', *SEJ*, Vol. 8, (Jan 2, 1925): 7. Boyd also discusses this in *Measuring Devices*.

<sup>105</sup> William A.F. Hepburn, 'Towards the Science of Education: A Plea for Research. Address delivered at the Ayr Congress, 1927', *SEJ*, Vol. 11, (Jan 6, 1928): 21.

<sup>106</sup> Mary A. Tweedie, 'Needs of the Moment': 7.

<sup>107</sup> *Ibid.*

significant that the initial proposal for a Scottish Council came not only from within the EIS's Research Committee but also from a teacher rather than from the universities or bureaucrats<sup>108</sup>.

The Scottish Council for Research in Education was formed in 1928. Partly funded by the EIS from the annual subscriptions of teachers, the formation of SCRE was the culmination of months of negotiation and collaboration between the Institute (primarily through the Research Committee)<sup>109</sup>, the Association of Education Authorities, the Association of Directors of Education in Scotland, the National Committee for the Training of Teachers, the Training Centres and Colleges, the Education Department of the Universities, and the British Psychological Society (Scottish Branch). Right from the start, SCRE was able to conduct research the breadth of which Boyd and his Committee could barely have hoped for, and its arrival was heralded with such acclaim that one is left wondering whether the writers in the *SEJ* were even aware of the existence of the Research Committee:

Such a body will be able to direct investigations on a scale sufficiently large to inspire confidence in the results obtained. It will also co-ordinate the work of independent investigators, thus preventing overlapping; and by publishing its reports will further the cause of education here and in other lands<sup>110</sup>.

The aims and ideals of SCRE closely matched those of the EIS's Research Committee: it would negotiate and control investigations, receive suggestions for research, allocate problems to investigators and publish results and recommendation<sup>111</sup>. Unlike the Research Committee, however, SCRE was able to finance research investigations and their publication. The formation of a National Research Council brought together the different strands of educational research in Scotland and had the opportunity to succeed where the Research Committee, given its limited resources, had met with limited success. By extending the organisation of educational research in Scotland to include not only the teachers but the universities and administrators as well, the possibility was introduced of being able to combine both theoretical and practical research – both of which the Reform Committee felt had an important part to play – in order to tackle important educational problems.

The influence of Boyd and the Research Committee was evident throughout SCRE. Boyd himself was a member of the Council for over 23 years<sup>112</sup>, and claims to have been offered the first

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<sup>108</sup> Wake, 1984. See note 29.

<sup>109</sup> Bell, 1986 See note 11.

<sup>110</sup> *SEJ*, April 20, 1928: 423.

<sup>111</sup> 'The Week: Research in Education', *SEJ*, Vol. 11, (June 29, 1928): 741.

<sup>112</sup> Scottish Council for Research in Education, *Twenty-third Annual Report, 1950-1951*: 4.

directorship of SCRE, which he turned down<sup>113</sup>. The kind of collaborative network that was essential both to SCRE's formation and its success owed a great deal to the work of Boyd and the Research Committee in involving teachers across Scotland in research. The Committee's work suggested a template not only of co-operation but of collating and transforming classroom-level investigation into something that could improve the educational system as a whole. Although the role of SCRE was to be considerably more didactic in nature than that of the Research Committee, with less of an emphasis on individual teachers conducting small-scale research on their own and more focus on collaboration, the involvement of teachers in research was crucial:

When all is said and done, however, the success of the National Research Council must depend upon the teachers in the ordinary schools. Without their willing and active co-operation the Council would be working in the air, and its pronouncements would have no validity. No doubt experts will be needed to collate the data, and from them draw the proper conclusions. But the teachers must have a large part in deciding on the type of problems tackled. If this is not done, the Council will get out of touch with reality, and that would be fatal to its usefulness<sup>114</sup>.

The Research Committee itself continued to function (albeit without Boyd) for many years, ceasing their endeavours only in the midst of World War 2. Although the Committee itself was primarily visible in the pages of the *SEJ* through their continuing involvement in the EIS's essay competition and the occasional research inquiry into spelling or handwriting, its influence was evident in the research still being carried out by the Research committees of Local Associations, reports of which formed the vast majority of non-SCRE research in the pages of the *SEJ*<sup>115</sup>. Thus, research was not just a national issue but remained a local one with teachers striving to improve their practice through experiment and observation<sup>116</sup>.

The existence of SCRE and the model of collaborative working which it involved enabled Scotland to contribute to educational research on an international level. Scotland's involvement in the International Examinations Inquiry led SCRE to co-ordinate the world's first (and only) population-wide surveys of intelligence, the Scottish Mental Surveys of 1932 and 1947. The research network that existed in Scotland was virtually unheard of and even the Americans – world leaders in large scale intelligence testing – considered the collaboration between all levels of educational organisation to be something special<sup>117</sup>. No longer would Scotland have to rely on other

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<sup>113</sup> Boyd, *Life Story*: 123.

<sup>114</sup> *SEJ*, April 20, 1928: 423.

<sup>115</sup> See for example, *SEJ*, May 9, 1952: 289.

<sup>116</sup> See for example, Belford, *SEJ*, Nov 27, 1936.

<sup>117</sup> 'The Week: American View of Scottish Council for Research in Education', *SEJ*, Vol. 13, (May 30, 1930): 580.

nations to experiment for them<sup>118</sup>. Even their nearest neighbour, and closest rival in educational terms, was not to form their own national research council for almost 20 years after the founding of SCRE<sup>119</sup>. The organic nature of SCRE's inception, building on the research network already established by the Research Committee's work, is in stark contrast to the philanthropic origins of the Australian, New Zealand and South African research councils, all of which were funded by Carnegie<sup>120</sup>.

The 1920s were an important period in the development of international educational research. Awareness of the unique movement occurring in Scotland at this time, a movement spearheaded by Boyd, Snodgrass and other like-minded and influential individuals, is limited today. The ability of Scottish teachers, through their association, the EIS, and Scottish researchers, like Boyd, to begin large scale, voluntary but ordered projects on examinations, spelling tables or other educational problems, signified the start of a distinctive tradition of education research.

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<sup>118</sup> Tweedie, *SEJ*, Jan 2, 1925.

<sup>119</sup> Jeffrey L. Griffiths, *NFER the first fifty years*. (London: National Foundation for Educational Research, 2003).

<sup>120</sup> Lawn, 'The Institute as Network'.

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