



*the International Association for
The Evaluation of Educational Achievement*

**Founding and development of the IEA
& Reflection on Contributions of
Teachers College Faculty
By
Tjeerd Plomp, past chair IEA**



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- About the IEA
- Conception and early days of the IEA
- The early studies
- Role of TC scholars



*the International Association for
The Evaluation of Educational Achievement*

- An independent, international cooperative of national research institutions and governmental research agencies
- Founded in 1958
- Mission to conduct comparative research studies in education
- More than 30 international comparative research studies in e.g. math & science (TIMSS), reading (PIRLS), civic education, ICT in education, teacher education, etc.



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First studies:

- 1960 Pilot study: Educational achievement of 13-year-olds in twelve countries – report by *Foshay, Thorndike et al* (1962), Unesco Inst for Educ, Hamburg
- 1964 Cross National Study of Mathematics (13 year-olds (12 countries; report in 1967)
- 1970-71 Six-subject Study: Science, Reading, Literature, French, English, Civics (14-year olds; from 19 countries (science) – 8 countries (French)



Conception of the IEA

- 1958, March: 1st planning meeting at UNESCO Inst for Education, Hamburg (Germany)
- 1959, June: 2nd meeting, also UNESCO, Hamburg
- 1959, June: 3rd meeting Eltham Palace, London.

Focus of meetings:

- how can test results be used to supplement pupil records in school?
 - what might be learned by conducting an international study?
 - would it be possible to undertake such a study?
- => Pilot study in twelve countries!



Conception of the IEA

USA Participants on these meetings:

- Hamburg #1: Willard Olson (UoMichigan)
- Hamburg #2: also Arnold Anderson & Ben Bloom (UoChicago)
- Eltham mtg: also *Arthur W. Foshay, Robert L. Thorndike*, and *Henry Passow* (Teachers College)

Participants (or their institutions) paid for going!

Anecdote Thorndike (see next slide)!

=> Pilot study in twelve countries!



Conception of the IEA

The motivation of the participants can be illustrated with the following anecdote about Robert Thorndike:

On one occasion Thorndike, who taught his classes on a Wednesday in New York, left the Eltham meeting on Tuesday evening, taught in New York on the Wednesday and flew back to London on Wednesday night – all paid for out of his own pocket.

(Postlethwaite, 2009)



Pilot study in 12 countries – 1959 - 1961

- Achievement in: reading comprehension, math, science, geography, non-verbal ability
- Target population: 13 year-olds
- Judgment samples – test of 120 items
- Study administered from UNESCO-Hamburg (Postlethwaite), but:
- Data analysis and reporting undertaken largely at Teachers College:
 - *Robert Thorndike*: supervising data analysis
 - *Wells Foshay*: leading the reporting, team of five authors, amongst them *Robert Thorndike*.



Pilot study in 12 countries – 1959 - 1961

Results reported in 1962 by Unesco Institute of Education, Hamburg.

Authors:

Arthur W. Foshay, Robert L. Thorndike, Fernand Hotyat, Douglas A. Pidgeon & David A. Walker

Arthur W. Foshay – 1st paragraph in the report:

‘If custom and law define what is educationally allowable within a nation, the educational systems beyond one’s national boundaries suggest what is educationally possible. The field of comparative education exists to examine these possibilities’.

Often cited as the raison d’être of IEA-type studies!



Pilot study in 12 countries – 1959 - 1961

Some conclusions:

- Established that a cross-national investigation was feasible in spite of problems of translation and administration, since the findings were meaningful.
- Study give rise to many hypotheses that could be tested in future studies.
- There were technical deficiencies, but conclusion was: is it possible to conduct work of this kind.

=> Group decided to embark on a technically 'better' study of one subject area only - mathematics



The International Study of Achievement in Mathematics 1963 - 1967

- Study lead from UoChicago with Ben Bloom and *Richard Wolf* (later TC) responsible for measurement and statistical analysis
- IEA Standing Committee with (amongst others) Torsten Husen (SWE, chair), *Robert Thorndike*, *Wells Foshay* and *Harry Passow*
- USA officially represented by Teachers College, through *Wells Foshay* and *Robert Thorndike*



The International Study of Achievement in Mathematics 1963 - 1967

- Researchers not so much interested in math *per se* but it was regarded as an outcome against which all sorts of tests of the effect of independent variables could be made (Postlethwaite)
- Report and the many articles had much impact, but generated also considerable controversy (Keeves: particularly in the field of comparative education)

But conclusion: clearly a need for studies in educational achievement in other domains of the curriculum from a wider perspective => Six-Subject Study



Follow up of International Study of Achievement in Mathematics 1963 - 1967

1967 Lake Mohonk conference

to develop the theoretical foundations for the
new Six-Subject Study.

Participants: scientists from education, psychology,
sociology, anthropology, economics

Report Towards a Cross-National Model of
Educational Achievement in a National Economy
edited by *Donald Super* (TC), publ TC Press



The Six-Subject Study – 1966-1975

Subjects:

Reading Comprehension – Literature – Science –
English as a FL – French as a FL – Civics Education

- Important question: are the factors related to achievement (found for math) the same for other subjects or were they different?
- Leadership from *Teachers College*
- Reading Compreh: lead by *Robert Thorndike*
- Literature: initially *Wells Foshay*, but became *Alan Purves* (later chair of IEA from 1986-1990)



Contribution of TC scholars to IEA

General:

- Pilot study: leadership role of *Arthur W. Foshay, Robert Thorndike, Harry Passow, Donald Super*
- Report of the Pilot study: *Foshay* directing; *Thorndike* chief test editor and data analysis; author
- Officially representing USA in 1st math study
- Six-Subject Study: leadership by TC – with
 - Case study questionnaire: *Harry Passow & Harold Noah* (amongst others)
 - Reading Comprehension: *Thorndike*,
 - Literature: *Foshay* and *Purves*
- Second Science Study (1981): *Willard Jacobson* with help of *Rodney Doran* and *Janis Owen* and graduate students prepared curriculum framework for this study



Contribution of TC scholars to IEA

Already mentioned prominent roles of

- Robert Thorndike
- Henry Passow
- Arthur W. Foshay
- Donald Super
- Harold Noah
- Willard Jacobson
- Alan Purves

Further:

- Richard Wolf (see next slide)
- Gita Steiner-Khamsi (Steering Cee Civic study 1990s)



Contribution of TC scholars to IEA

Special attention to *Richard M. Wolf*:

- Studying under Benjamin Bloom (UoChicago)
- Initially UoChicago: data analysis of 1st math study
- 1968 - 1998: Teachers College, for 12 years chair of Dept of Measurement, Evaluation and Statistics

Prominent in IEA:

- Participated in 1st math study, Six-Subject Study, SISS, Computers in Education study
 - IEA General Assembly member for the USA (1976-1990)
 - Former chair of IEA Publications & Editorial Committee
- ⇒ Honorary member of the IEA!



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“Dick was not a pleaser, but pleasant to work with!”

“his input often peppered with humor, accompanied by his characteristic laugh” (Hans Pelgrum)



Contribution of TC scholars to IEA

**Congratulations!!
and
Thank You**

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John Keeves (AUS), Petra Lietz (AUS), Judith Torney-Purta (USA), Wilfried Bos (GER), Bob Garden (NWZ), Ingrid Munck (SWE), Rainer Lehmann (GER), Jan Lokan (AUS), Hans Pelgrum (NET), Ken Travers (USA), Hans Wagemaker (IEA), Richard Wolfe (CAN),

Some key references used:

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