

RADICAL TEFL¹

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'*Radical*': "going to the roots" (Oxford English Dictionary)

RADICAL TEFL

<http://radicaltefl.weebly.com>

An annual forum for probing concepts and assumptions in TEFL, and for exploring and developing understanding of the TEFL classroom encounter.

Number 4

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Electronic version

(Back issues are available as a free download at the website above)

Publishing Editor: Alistair L. Maclean

CALL FOR ARTICLES and GUIDELINES FOR CONTRIBUTORS

Page 66. Also see pages 4 - 6.

FUTURE ISSUES

Issue Number 5 (Articles for 30 September 2016. Publication: March 2017)

Suggested Theme:

“What can EFLT learn from the teaching and learning of other school subjects?” (See page 58 & 66))

Issue Number 6 (Articles for 30 September 2017. Publication March 2018)

Articles wanted from teachers: Themes:

“What didn’t work in a lesson” (See page 5)

“Exploring a research claim” (See page 6)

“Histories of EFLT” (See pages 6 & 62)

(Articles on these themes also welcomed for Issue number 5, to receive for 30 Sep 2017)

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TEFL TUTORS AND MENTORS!

Encourage your student-teachers to write a “Report from the Classroom”

Dear Colleague,

It is unusual to read a journal article which reports on how an idea from, for example, language studies or 'social theory' actually works (or doesn't work) with a lively secondary-school class. This is part of a deeper historical problem of theories and syllabuses often being proposed for EFLT, but without feedback or scrutiny on the realities and problems of applying them. Further, theory and syllabus reform, driven by ideas in the academy (often drawn from outside Education) rarely starts from any deep understanding of students' learning processes, learning problems and learning difficulties, or takes into account the constraints and pressures on teachers.

To help re-balance this strong 'top-down' influence on EFLT, and to help scrutinise (or validate) more carefully proposals for the classroom, *Radical TEFL* would like to publish short articles by the specialists on understanding the classroom – teachers. An 'article-report' by one of *your* student-teachers might describe a practical difficulty in implementing an idea found in a syllabus, or perhaps introduce an issue discussed in mainstream Education which is otherwise passed over.

For example: problems of 'teacher survival' in difficult classes, of classroom discipline, or of working with students of different levels, are discussed in Education but not normally raised and explored in EFLT articles. Or, classroom reports which try to understand failed lessons and failing students may form entry points into a more general understanding of problems of teaching and learning in secondary classes.

Student-teachers will write for publication if they are given help with getting started and with editing (pages 5 & 6), and if their work is rewarded with a coursework mark. They gain confidence by seeing their work in print, and they learn about making their writing relevant to others. They can add the article to their C.V., and your institution is noticed. Everyone wins, as classroom feedback and scrutiny of ideas adds to perspective and debate within EFLT. And the influence of the academy might be *strengthened*, because academics and publishers might – surprisingly - find teacher feedback and scrutiny helpful for developing and improving their ideas.

Alistair Maclean / Publisher

ARTICLES WANTED FROM SECONDARY TEACHERS

Radical TEFL would like to publish articles by secondary teachers in both the March 2018 and March 2019 editions:

- between 1,000 / 2,000 words, to fit on one or two double pages;
- bibliography and references optional;
- based on personal experience and on classroom problems met and dealt with;
- don't be afraid to be critical or questioning about outside influences on your teaching
- be specific by giving concrete examples of what happened in your classroom
- Send your article in WORD, single-spaced in 12pt, to:

alistair.maclean@outlook.com

Deadline for receiving articles: 30 September 2017 (for March 2018 publication) or 30 September 2018 (for March 2019 publication)

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Three possible topics for articles might be:

A) **WHAT *DIDN'T* WORK IN A LESSON**

Can we learn more from 'failed lessons' than from successful ones? Your article/report could be written under these headings:

- State what you wanted your students to achieve;
- Give information about your students' previous learning;
- State what you did;
- Describe what happened (or didn't happen), and;
- Reflect on what you learned from the mismatch between intention and result: what would you do differently next time, in a similar situation?
- In all cases, be as specific as possible in your report, maybe focusing on just one student. Give information about materials.

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RADICAL TEFL 4, MARCH 2017

B) EXPLORING OR EVALUATING A RESEARCH CLAIM OR IDEA IN YOUR CLASSROOM

A possible structure for an article:

1. State the claim or idea you wanted to evaluate: give the written source of your claim (perhaps in an article, or a conference presentation, or in a handbook on teaching; etc.);
2. Give the context of your evaluation: class size, level and age; previous learning and of students; exam and/or needs or problems of students;
3. Why did you decide to scrutinise, for your class, the research claim or idea?
4. What did you do to evaluate / explore the claim?
5. What was the result of your scrutiny? Be as specific as possible, perhaps in terms of students' output, or students' work
6. What questions or conclusions emerged from the above?
7. Could you suggest an amendment or qualification to the claim, or idea, in order to make it work in your kind of classroom?

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C) HISTORIES IN LOCAL SITUATIONS

Short articles wanted from teachers and administrators:

(see page 62 for some questions on the wider context of local histories).

As an example of a format of an article: Suggestion only.

- describe an outside influences that took place during your teaching career; eg, obliging you to change something in your teaching
- describe the effects of those changes on your teaching problems and constraints;
- to put these changes into a context, describe the situation you taught in, the problems you had to deal with, and describe the needs of your students; and exam requirements, and perhaps coursebooks, and any other external constraints (or incentives) in your teaching;
- give an evaluation of the results of those outside influences which led to changes by you on meeting the needs of your students.
- Or, write a personal reflection on how your teaching developed over time as a result of outside influences (e. g. , as influenced by a mentor, a course, new theory about language or learning; or by new syllabus requirements)

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RECONCEIVING 'TEACHER RESEARCH' WITH THE HELP OF JOHN DEWEY'S THEORY OF ENQUIRY

Alistair L. Maclean

The Introduction presents John Dewey's theory of enquiry, and is expanded in:

Section 1 (on starting from problems);

Section 2 (on 'experimental-reflective' enquiry); and

Section 3 (on scrutiny of knowledge claims).

Sections 4 and 5 explore implications of Dewey's theory for English as a Foreign Language (EFL) teacher research. 2

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The problem Simon Borg, a specialist on EFL teacher research, states “*globally speaking, language teacher research remains limited*” (2013: 15). Currently, 'research' is often understood as a major and ambitious one-off commitment, involving design, reading, data collection (quantitative or qualitative), writing-up, data analysis and working with a supervisor. For a secondary teacher the thought of so much work, with the needed time-commitment and research skills, may mean that she never undertakes a research project. There would seem to be a need to probe, look again and re-conceive the notion of 'teacher research', or teacher enquiry, perhaps leading to a less time-consuming understanding of 'teacher research', perhaps at the same time taking advantage of enquiry skills which teachers already bring to their work. In this study I propose and discuss - drawing on the work of John Dewey on enquiry - a fresh conception of teacher research.

There can be different starting points and motives for doing teacher research, and this study has in mind mainly *teacher research which investigates students' problems*: my research question here is: **How can a secondary EFL teacher enquire into and understand her students' difficulties and failures in learning English?** I will argue that John Dewey's description of how enquiry works provides an entry point for a broader and less time-consuming conception of 'research', which may be realistic for secondary teachers to use, and which takes into account the constraints under which secondary-school teachers work. 3 The standpoints which I bring to this study are: firstly from mainstream education as a secondary-school teacher who often taught students who had problems in learning EFL, and secondly a background in philosophy with a special interest in problems in methods of enquiry, and in problems and pitfalls in growing knowledge.

²This study develops ideas introduced in my (2015: secs. 3 & 4), *How can a teacher grow her knowledge?*

³Dewey's writing, when it refers to education, is normally argued in rather general terms, and he leaves the reader with the task of working out for herself or himself local implications. Dewey did not write about teacher research or about modern language teaching, so far as I know. His writings are collected in an edition of 36 volumes edited by Ann Jo Boydston and published by Southern Illinois University Press. On enquiry see esp. Dewey (1910) and (1938, 1986: ch VI).

INTRODUCTION TO DEWEY'S THEORY OF ENQUIRY

For Dewey, enquiry '*both in common sense and science*' (1938: 105) ⁴ is linked by a similar structure, as observed in the following pattern of core stages:

- **a problem** or 'problematic situation', in the context of some prior knowledge;
- an hypothesis, or **knowledge claim** (or 'belief' / 'judgement') which derives from a combination of action, individual experience and thought/reflection;
- **scrutiny** of the claim: some validation (warranting, testing) attempt. ⁵

These stages feed into each other, *in a loop*, so allowing both the formulation of problems and knowledge claims to be open to revision, and Dewey labels this process 'scientific', or 'experimental', in a broad sense. For Dewey, 'experimental' enquiry (because it is self-correcting) has the status of 'genuine enquiry', because a necessary condition of 'genuine enquiry' is that it is self-correcting. Other kinds of enquiry risk being speculative. For this reason, Dewey gave considerable attention to understanding the scrutiny (validation) stage (sec. 3 below).

Dewey took the unusual and quite startling position that there was *no sharp distinction* between, on the one hand, experimental and formal 'research', and on the other hand, everyday investigations, enquiry, learning or problem-solving (1910). He claimed to have observed that there are core patterns in enquiry, given above, which are common to all kinds of enquiry. Dewey's theory, at first sight, goes against current assumptions that different fields grow their knowledge in quite different ways, and in Appendix [A] (p. 30 below) I discuss this possible objection to Dewey's theory.

If one is going to make a study of 'teacher research' it seems important to have a theory of enquiry to use as a starting point and underpinning. Dewey presents his theory in his How we think (1910, but re-written in 1933), and more fully in his technical-philosophical Logic: the Theory of Inquiry (1938). His theory is not a *proposal* for how enquiry should be carried out, but rather claims to be a *description* of the 'architecture' or 'logic' of all kinds of enquiry. (1938: 107-08) ⁶

Dewey's theory, claiming that all 'genuine enquiry' is 'experimental', perhaps indirectly influenced early thinking in the teacher research movement (Stenhouse 1975: sec. 4 below). (When Dewey uses the words 'scientific' and 'experimental' he

⁴ Dewey writes (1938: 105), in the key chapter VI, *The Pattern of Inquiry*: "*inquiry ... has a common structure or pattern (and) this common structure is applied both in common sense and science*"

⁵These three stages also form the kernel of Karl Popper's understanding of the architecture (or logic) of enquiry and the growth of knowledge. See his (1999) *All life is problem solving*. Or see his *Back to the Presocratics* in his (1972)

⁶ Page references from Dewey's (1938 – published in 1939) in the UK are taken from the 1986 Boydston edition. Dewey's description of enquiry seems to have been based on studies by especially C. S. Peirce (and also by William James) of how scientists grow their knowledge. See Paul Croce (1995: esp. Introduction, ch. 4 & ch. 7). However, Dewey does not normally give references in his books for sources of his ideas. Peirce was more interested in how a *community* of enquirers grow their knowledge, and James and Dewey were more interested in how the individual learns, which makes Dewey relevant for understanding the growth of *local knowledge* (see sec. 5 below for a discussion).

does not mean 'objective' in some exclusively detached 'spectator' sense: see 4.1 below). I will argue in this study that his theory offers a relevant and modern underpinning to understanding options for teacher research. ⁷

A main reason for drawing from his theory is that he offers a description of enquiry and of the growth of knowledge which, especially at the problem-formulation/diagnosis stage (sec. 1 below) and the scrutiny or validation stages (sec. 3), seems well-suited to *local enquiry* which addresses and tries to find a solution to a problematic situation – such as failure to learn EFL. His theory both describes a *framework* or architecture of enquiry, while at the same time leaving room for '*subjective*' strategies of enquiry, within that framework (this idea is developed in sec. 5 below).

Dewey's theory Dewey nowhere, so far as I know, summarises his theory of enquiry in a concise statement, but Ernest Nagel, who worked with Dewey, summarises the theory: ⁸

“As Dewey saw the pattern of inquiry, it is a succession of distinguishable stages. In the first, the problem ... is located, formulated and developed; in the second, hypotheses (or suggestions) for solving the problem are introduced and examined ... ; in the third, a hypothesis is tested ... This pattern obviously includes, but goes beyond, what has been called the 'hypothetico-deductive method' of scientific investigation”.

Here are Talisse & Aikin (2008: 120-21) with a similar summary of Dewey's theory, paraphrasing Dewey from his (1938): [I emphasise key words]

“Dewey follows Peirce in holding that inquiry commences in response to a problem ... (for Dewey) inquiry is instigated by confrontation with a problematic situation ... a situation is problematic when it is 'uncertain, unsettled (and) disturbed'. Inquiry, then, is the activity of bringing order or restoring equilibrium to a problematic situation ... inquiry is for Dewey problem solving... Dewey holds that all proper inquiry instantiates a common general pattern, which he summarises as follows:

1. *Perplexity, confusion, doubt . . .*
2. *a tentative interpretation of the given elements*
3. *a careful survey (examination, inspection, exploration, analysis) of all attainable considerations which will define and clarify the problem at hand*
4. *a consequent elaboration of the tentative hypothesis to make it more precise and consistent, because squaring it with a wider range of facts*
5. *a plan of action which is applied to the existing state of affairs, doing something overtly to bring out the anticipated result . . .*
6. *. . . , and thereby testing the hypothesis”* ⁹

⁷ It is beyond the scope of this study to argue that Dewey's theory of enquiry is better-suited to local teacher research than 'critical theory' is (which underpins action research), but see App. [B] on p. 32 below.

⁸ In the Introduction to the 1986 edition (ed. Boydston) of Dewey's (1938), on pp. Xiii-xiv.

⁹ For very similar summaries of Dewey's theory of enquiry see: Hahn and Kennedy (Boydston 1970: 31-36 & 65-66). Or see Archambault (1964: xiv – xx). The most relevant sections of Dewey (1938)

Whether enquiry is carried out by an individual or by a community, what seems to be common to enquiries, for Dewey, is that they share a common pattern, moving through the stages above. ¹⁰ It should be understood (see Appendix [A] below on p. 30) that Dewey's 'logic of enquiry', summarised above, only describes an outer shell or scaffolding of the stages through which enquiry moves: this 'logic' is a separate issue from the 'psychology of enquiry', which addresses the question of *how*, psychologically (ie, cognitively / mentally), the stages are navigated by an enquirer.

SECTION 1. STARTING FROM PROBLEMS 11

1.1 Dewey observes that a starting point for the growth of knowledge is '*a problematic situation*', in the context of prior knowledge and individual experience. For Dewey, some main features of starting from a problematic situation are:

- Within a problematic situation there are subsidiary problems embedded, and which require to be extracted, or 'unpacked': The relevant problems are to be found in the context of the *problematic-situation*;
- Understanding the problem is like a diagnosis: there is looking and probing – and especially, there is *questioning*;
- Understanding the problematic situation is a *process*, during which embedded problems can be progressively understood and seen afresh.

So, for Dewey, the 'determining' (diagnosis) of a problem is not a one-off insight, but is a process, and he writes: (1938: 112) "*The determining of a genuine problem is a progressive inquiry (and to do this) the first step is to search out the constituents of a given situation*". In other words, an enquirer starts from a 'problematic-situation', and from this, the relevant problem or problems require to be identified, extracted and considered. Dewey, further, states that an enquiry begins by first separating problems which are 'determinate' (or clear and known) and only by secondly identifying 'indeterminate' problems (problems which are still confused and unclear). ¹²

for this study are: Preface; pp. 43-45; but especially ch. VI, *The Pattern of Inquiry*. Some key sections of (1938), including extracts from ch. VI, are reprinted in Sidorsky (1977: 31ff.)

¹⁰See Appendix [A] on p. 30 below for a discussion of the significance of this distinction in understanding the growth of knowledge. I try to bring together those two approaches to understanding enquiry and the growth of knowledge, in the context of teacher research, in section 4. **The architecture of the growth of knowledge is a separate question from the psychology of the growth of knowledge.** Without an appreciation of this demarcation it is difficult to grasp how knowledge grows and how enquiry works. [There exists a literature on teacher cognition, see first footnote in sec 4. 2 for citations.]

¹¹ Hahn, paraphrasing Dewey's stages of enquiry (1970: 31-36) writes: "*The process of determining the solution is frequently one of more adequately specifying the problem*" Dewey writes (1929: 83) "*The first step in knowing is to locate the problems which need solution*", and (ibid: 151) "*All reflective inquiry starts from a problematic situation*". Dewey writes (1938: 113) "*inquiry is a progressive determination of a problem and its possible solution*"; and (ibid: 245) "*Every special inquiry is ... a progressive and cumulative re-organisation ... a process ... of transition*" Or see his (1910: 167-68

¹² This relates to Dewey's idea that enquiry begins from prior knowledge: see his (1910) and my (2016: sec. 2) where I summarise his thinking on this. Problems which are known or determinate constitute knowledge already considered as known, that is, '*prior knowledge*'. I have explored implications for EFL learning of starting from prior knowledge in my (ibid).

1.2 To take an example, a teacher might want to investigate the following problematic situation: **Present simple and present continuous tenses are apparently confused by students who consistently use the form “I am do.”** The teacher, following Dewey, needs to extract and determine problems which are present in the problematic situation. Some problems might be extracted or unpacked by asking questions, eg: *Did students first of all master the use of the two present tenses?* and: *Was material introduced too quickly?* **13** However, these questions may turn out not to get to the root of the problem. They merely 'objectify' the problematic situation, keeping a distance from it, whilst what is required are questions which enter into the students' standpoint (ie, the students' subjectivity). So, the teacher might probe deeper and see, for example, that she should not be *looking at* the students, in some detached/objective way, but that rather she needs to probe, empathetically, into her students' problems from the students' point of view, that is, she needs a question which allows her to enter into her students' standpoint and subjectivity, for example: *“Perhaps students had seen the words 'do' and 'are' in other contexts, and were puzzled or 'thrown' when they were introduced in a different context?”*

This last question is less superficial than the earlier questions because it both probes the *relationship* which students have with materials, and it probes the students' own understanding (or misunderstanding) of the problematic situation. We see in the above questioning that the teacher's diagnosis of the students' problem is progressive, as Dewey states is the case in enquiry. Further, the enquirer's questioning will define the direction which the enquiry takes, as one line of diagnostic questioning leads to another. In this sense, questioning defines the enquiry.

1.3 Dewey warns against '*mis-taking*' one's problem: (1938: 112)

“To find out what the problem and problems are, which a problematic situation presents to be inquired into, is to be well along in inquiry. To mis-take the problem involved is to cause subsequent inquiry to be irrelevant or to go astray ... The way in which the problem is conceived decides which specific suggestions are entertained, and which are dismissed; what data are selected and which are rejected”. **14**

Good questioning is a helpful probe to reveal the real problem, and Dewey writes (1938:109) *“Inquiry and questioning, up to a certain point, are synonymous terms”*

Professionals in other client-centred fields (e. g. , medicine, or therapy, or legal) prepare for their interventions and grow their understanding of a client by taking a history in the context of the client's past and present problematic situation, and to do this they ask questions to both the client and to themselves. For these professionals, intervention cannot begin without a clear understanding of the problematic situation, and which involves extracting relevant problems from the 'problematic situation'

¹³ The International Baccalaureate *Theory of Knowledge (TOK)* course teaches students how to probe or 'unpack' a problem, by asking relevant 'knowledge questions', which will reveal otherwise hidden and submerged aspects of the problem, as done here with this example, and then continued below it.

¹⁴ Michael Polanyi helpfully develops this idea: *“all (investigations) must start from a problem . . . but how can we see a problem ... for to see a problem is to see something that is hidden”*(1966:21) (my emphasis).

which the client presents, through progressive questioning. Questioning which is probing draws out the problems, and helps one to avoid *mis-taking* the problem. Further, the process of questioning keeps the 3-stage loop moving (problem; knowledge claim; scrutiny), meaning that claims made in enquiry are open to refutation, and from that, to a fresh statement of the problem, and then to fresh but provisional claims, and so on, in a loop.

Summary and link to the following sections Questions are a tool to obtain understanding of problems embedded in a problematic situation. Through asking questions an inchoate problem situation becomes clearer, and so the enquiry is launched and can then get under way. The enquirer can next formulate provisional judgements or hypotheses about the problem, and can consider courses of action.

SECTION 2. EXPERIMENTAL-REFLECTIVE ENQUIRY

I only sketch Dewey's thinking here and will expand and explore his ideas below.

2.1 Dewey understands enquiry as being (in whatever field) an **experimental or scientific** enterprise, with 'experimental' conceived in a broad sense of investigating a clearly defined problem through a combination of interventions linked to experience, and linked to reflection (5. 1 & 5. 2 below), followed by scrutiny of an eventual knowledge claim (or judgement / belief). For Dewey, **action-driven-by-feedback**, in the context of addressing, through experience, a local problematic situation, is the kernel of enquiry. This looping makes the process self-correcting.

2.2 A **knowledge claim** can come early in the enquiry process and be explicitly provisional, as in a hypothesis or hunch, or later in the enquiry, for example, after collecting data. (*How*, and through what processes, in the enquirer's cognition the knowledge claim is arrived at is a question belonging to the psychology of enquiry and does not concern Dewey's theory of enquiry – see Appendix A on p. 30.)

2.3 At first sight, enquiry (and the evidence it gathers) seems to be either *material*, as in a laboratory or a workshop, or it can be *mental*, as with a mathematician thinking through a problem. For Dewey however, unless material observation and mental reflection work **together**, then conclusions arising from enquiry risk being insecure. (Secs. 5. 1 & 5. 2 below)

2.4 'Experimentation' is understood to be about active interventions in the sense of 'trying things out' and 'putting things to the test', rather than adopting an objective and observational stance to what one is investigating. (See secs. 4. 1 & 4.2 below for a development of this idea) **15.**

¹⁵ On the need for reason and observation to work together in enquiry see his (1910: 96; 135; 153 & 145-48), or see his (1920: 140-143, which are pages 32-33 in the General Books reprint); and for discussion see below secs [5. 1 & 5. 2]. See Dewey (1910: 86-90 & 152-52). See Dewey (1910: pp. 2-3; **9-13**; 57; 68-70; 74-76 & 94-95) on reflection and making inferences. His *How we think* (1910 edition) is about enquiry as *thought and reflection combined with an experimental component*: also see (ibid) ch. XI on this idea, and see (ibid) chs. Esp. I, VI & VII, and pp. 119-27 & 57-62. Although written for teachers, in (1910) Dewey's underlying thesis is not clearly put: **He proposes that learning, thinking and enquiring can often be understood as the same process.** For other passages in Dewey's work which describes his thinking on enquiry, see his *Reconstruction in Philosophy* (1920, 1948: 140-60, which is chapter VI, or pp. 30-36 of the General Books reprint of 1920, 1948), or see his *Studies in Experimental Logic* (1916: secs. II & III of the *Introduction*). His

SECTION 3. VALIDATION, OR SCRUTINY

3.1 For Dewey, testing or validation of a knowledge claim (*or 'judgement' or 'belief'*) needs to be done against an attempted practical and successful resolution of the problematic situation . He writes in his *Reconstruction in Philosophy* ¹⁶

“ If ideas, meanings, notions, theories, systems are instrumental to ... a removal of some specific trouble and perplexity, then the test of their validity and value lies in accomplishing this work. ... Confirmation, corroboration, verification lie in works, consequences. Handsome is that handsome does. By their fruits shall ye know them ” (His emphasis)

Dewey has drawn from William James, who wrote: (my emphases)

*“The pragmatic method (asks) what difference would it practically make to anyone if this notion rather than another were true? ... for pragmatism, theories (are) **instruments**, not answers . . . pragmatism sets (theories) **to work** ... always appealing to **particulars** ... emphasising practical aspects ... (these are) anti-intellectual tendencies ... the attitude of looking towards ... fruits, consequences ... (the test) of probable truth is **what works best**”* (1907: 17-28)

[Dewey avoids the word 'pragmatism' in his [1938], but has drawn on and developed William James: I list some key features of 'pragmatism' in a footnote here] ¹⁷

In his (1938: ch. VI & see section 1 above), Dewey has argued that a problem is developed in stages, throughout an enquiry, and not normally formulated in a one-off sense. He makes the same point about validation (1938: 178, his emphases):

“Judgements ... are not confined ... to the final close. Every complex inquiry is marked by a series of stages that are relative completions. For complex inquiries involve a constellation of sub-problems, and the solution of each of them is a resolution ... “

Logic: the Theory of Enquiry (1938) is the fullest (but very technical) statement of his theory of the logic (but not the psychology) of enquiry, which is discussed in his (1916).

¹⁶ (1920) See p. 35 of the General Books reprint, or p. 156 of the 1948 edition. For other passages on validation see Dewey's (1910: pp. 27; 30; 77; 96 & 130.); and his (1929: 59 & 109)

¹⁷Note on pragmatism as a method of enquiry. For the founding pragmatic philosophers (Charles Peirce, William James and John Dewey), who studied and explored methods for the growth of knowledge, a 'pragmatic approach' to making claims to knowledge is characterised by the following main features:

1. experience, focused on a problem, is one starting point for growing and testing *local* knowledge;
2. the validation of enquiry, or of an idea or theory, is seen in successful *action*, that is, in some idea working in practice and addressing the problematic situation which was the starting point for the enquiry;
3. the way in which the above stages proceed are not different in their essentials from the way in which science works: that is, a *problem* (doubt), and a *validation stage* are required, linked to some experimentation in the sense, not of trying to control variables, but of 'trying things out'. .
4. Pragmatism rejects the quest for certainty and for precision for its own sake;
5. pragmatism is interested in 'knowledge' *which is helpful* in a given situation rather than 'true' in a general sense; and
6. pragmatism asks that an enquirer pays careful attention to methods of enquiry.

Implications A practical implication, for the EFL teacher-enquirer, of this understanding of validation as being progressive, might be as follows: let's imagine that the teacher-enquirer has been working with her class on the problematic situation given in Section 1, where the example was introduced of present simple and present continuous tenses being apparently confused by students who consistently use the form “*I am do*”. Let's imagine, further, that the teacher has 'experimented' with her class (in the sense of 'trying things out'), to try and help students avoid this conflation, and that the teacher now wants to validate or test whether her work has been successful. The teacher may observe that under some conditions students will not conflate these tenses (eg, under written test conditions, with time to think), but that under other conditions (eg, in a role play) students may fall back into confusion. Or, on Friday, students will seem to have 'learned' the distinction, but on the following Monday morning they will relapse. Eventually, perhaps on holiday in England, a student may start to use the present tenses correctly and without thinking, and this is a stronger validation than a written test. The validation (or 'test') of a student's understanding can therefore be of different kinds, and different stages of validation will perhaps be needed. This example implies that if a validation attempt of a teacher's work with students is regarded as a one-off event, as 'successful or unsuccessful', the teacher will be *mis-led*, just as the teacher will be misled if she regards the students' problem concerning the confusion of the present tenses as due to one problem rather than a cluster of problems (sec. 1 above).

Even to formulate a research question, for the enquirer, is to make claims to knowledge in the form of assumptions underlying the question (all questions have embedded assumptions), and so validation can begin as soon as enquiry begins, in the form of 'questioning the question'. Validation (similarly to diagnosis of the problem-situation), whether done materially or mentally ¹⁸, can therefore be present throughout the enquiry. Whilst it is a fair approximation of the enquiry process to say that a problem leads to a knowledge claim which leads to some scrutiny/ validation, in practice an enquiry may loop and spiral more like a circle than a straight line.

3.2 Validation (sometimes called warranting or justification) is perhaps both the most intractable problem in doing research, as well as the most neglected. A significance of validation attempts, or of some scrutiny or test of knowledge claims, is that validation allows work to be self-correcting and so allows it to develop, and also, validation (for example, validation of ideas from language studies when applied in a large classroom) can keep claims close to reality.¹⁹ The main function of validation,

¹⁸ At the validation stage, reason or reflection can be used to: pose critical questions to conclusions and to methods used and to starting assumptions; to identify flaws and fallacies in reasoning, and to look for contradictions in claims or conclusions, as inconsistency will be a sign that the problem has not been solved. The function of reason here is not to build knowledge, but to challenge knowledge claims.

¹⁹ There is superficial discussion of validation (warranting) by Professor Widdowson in his *Aspects of Language Teaching* (1990: chs 3 & 4). The only sustained attempt within EFLT to scrutinise, or validate, ideas for the classroom from Applied Linguistics seems to be by Michael Swan (2012: passim), *Thinking about language teaching*. This is a **key** collection of articles. Some specialists including Widdowson (see his polemical and insufficiently-researched paper *The theory of practice* in his (2003) *Defining Issues in Language Teaching*), and Rod Ellis (2008 & 2012), are apparently unaware of literature within mainstream education on researching the classroom, especially on the pitfalls in doing research. (See the footnote **in bold** below in section 5. 3 here for some citations of

for Dewey, is not to arrive at 'knowledge' or a general 'truth', *but to help one arrive at workable solutions to the initial problematic situation*. It is partly for this reason that the problematic situation needs to be clearly stated, as otherwise validation cannot be done: there is nothing to validate a knowledge claim against.

3.3 Discussion: Validation by the teacher of her own work

If validation is best achieved when carried out *against experience* (above), then the teacher, at the validation stage, arguably has two advantages over the observer-researcher. Firstly, she can integrate a reflective-validation element into a trial-and-error approach to her teaching in real time (this idea expanded in sec. 4 below), whereas an observer may need a substantial data-gathering stage, and only when results have been gathered in can he start to reflect or validate. Secondly, she has constant feedback from her students on how her interventions are working, allowing her to re-conceive and redesign those interventions: an observer cannot intervene.

If the teacher only has the aim of developing her *own* understanding of her *own* students' problems, because her problem is local she does not have to concern herself with other groups of learners (who may be different) as does the observer-researcher who may need to generalise from what he observes, with all the methodological issues involved in working from the particular to the general. This makes validation of her conclusions simpler and arguably more secure than for more formal research.

Further, because of the favourable conditions she has for investigation, just outlined, the teacher can continually return to the same problem, or re-conceive her problem, and perhaps approach her problem differently, in a quite spontaneous or intuitive way, depending on feedback obtained. Especially, and helping to make the process self-correcting, unworkable ideas can be quickly abandoned. Her advantage over a researching observer is that the three-stage loop moves faster, progress can be faster, and unfruitful ideas can be dropped, and replaced by others, more quickly. **20**

Summary of first three sections Dewey's theory is a claim to describe how enquiry *actually takes place*, and his theory treats the architecture of enquiry, and not psychological or cognitive issues. For Dewey enquiry progresses and develops from

literature within mainstream education on pitfalls in doing classroom research, especially for probing analysis by Martyn Hammersley, and by the key Scarth & Hammersley [1986]). (On theory and practice in the classroom, which is the theme of Widdowson [2003: *ibid*], see the very perceptive first two papers in Wilfred Carr's (1995) *For Education: Towards Critical Educational Inquiry*. These two papers were first published as follows: Carr, W. (1980), *The Gap between Theory and Practice*, *Journal of Further and Higher Education*, **4/1**; and: Carr, W. (1986), *Theories of Theory and Practice*, *Journal of Philosophy of Education*, **20/2**).

²⁰This idea, and others from Dewey on enquiry, is also found in the work of Karl Popper. Popper's main work on enquiry was published, in German, in the 1920s. Students of methods of enquiry will note how similar some of Dewey's ideas are to Karl Popper's, especially the ideas that: (1) the growth of knowledge starts from problems; (2) knowledge claims should be regarded as provisional, and the importance of scrutiny of knowledge claims; (3) the need to keep separate questions concerning the 'architecture' or logic of enquiry from questions concerning psychology and cognition in enquiry, [discussed in Appendix A below on p. 30]. See Bryan Magee's *Karl Popper*, (1973: chs ii, iii & v) for a summary of Popper's thought on enquiry. On 'pragmatic' teacher validation, of *her* work, according to whether an idea *works*, based on a study in the USA, also see Lortie, *Schoolteacher*, (1975:77-79)

a problematic situation, using a combination of questioning, experience (or empirical observation), action and reflection. Enquiry works in a self-correcting spiral, and not in a straight line, for although enquiry takes place for Dewey according to three distinct stages, those stages (problem definition; knowledge claim & intervention; and validation attempt) will overlap and feed back into each other in a looping way, always open to correction. ²¹ Having now presented an outline of Dewey's general theory of enquiry I will now (sec. 4) explore some implications for teacher research.

SECTION 4. DISCUSSION: SOME PRACTICAL IMPLICATIONS OF DEWEY'S THEORY FOR TEACHER RESEARCH

4.1 The influence of Dewey on the teacher research movement

Dewey's theory of enquiry seems to have indirectly influenced the work of Lawrence Stenhouse (1975: ch. 10) and so from Stenhouse, influenced the teacher research movement. Stenhouse is often credited within the education literature of introducing the idea of 'teacher as researcher', and from which the teacher research movement draws on, and Stenhouse conceived teacher research in a practical, 'experimental' sense: (these ideas are expanded earlier in his book)

“The idea is that ... each classroom is a laboratory; and “any educational idea ... invites critical testing rather than acceptance; and: “The commitment to systematic questioning of one’s own teaching as a basis for development” (ibid: 142)

Stenhouse implies that such 'critical testing' and 'systematic questioning' can be ongoing, and comprise an attitude or default stance to teaching. This broad, and informal concept of teacher research has as its central concept '*classroom as laboratory*', a constant and ongoing rolling source of data collection, confirmation and dis-confirmation of ideas, leading to new insights. Stenhouse's thinking here seems to be similar to Dewey's, and seems to indirectly draw from Dewey's thinking, namely that an enquirer can learn, in a self-correcting way, by being 'experimental'. ²² However, the objection can be put, what is understood by 'experimental'?

4.1.1 Possible objection The idea of 'experimenting' with one's students has negative connotations. However, even in the scientific laboratory, to 'experiment' is not always done in some 'objectivist' sense of controlling variables in a mechanist and reductionist way. The Auschwitz survivor and professional chemist Primo Levi gives an insight into a broader conception of the word 'experiment', as he describes a scientist's (mental) *thinking and questioning* as he 'experiments' (For Dewey, as noted in [1. 3], questioning and enquiry are often synonymous). Levi describes his approach:

²¹ Donald Freeman mentions the three-stage process: *“the teacher-researcher identifies an issue or problem ... intervenes in the classroom setting to address that problem in some way ... and then assesses the impact of the intervention”* (Freeman 1998: 28), but he does not mention a 'loop'. Chris Brumfit refers to a loop in enquiry (drawing from Popper) in his *Individual Freedom in Language Teaching*, page 184.

²² Stenhouse (1975: ch. 10) summarises arguments made in the earlier chapters. Stenhouse was followed up by McIntyre (below), but the Action Research movement was a break away from Stenhouse, as it relied on critical theory for an underpinning. Arguably, Dewey, Stenhouse and McIntyre make up one (eclipsed) teacher research movement, and Action Research seems to represent another tradition. In Appendix [B], p. 32 below, I contrast Dewey's theory of enquiry with Action Research

- If I act in a certain way, how will the substance/person react?
- Why does (the person) manifest or interrupt or change a specific behaviour?
- Can I anticipate here? What are the signs which matter, and which are those to neglect? Can I foresee problems/dangers/risks? and
- Never remaining indifferent/unquestioning to what is before me **23**

This kind of questioning may be close to how an 'experimenting' teacher (or other client-centred professional) works. One notes here that 'experimentation' and feedback (validation/scrutiny) work together, and that 'experimentation' can be understood as inseparably linked to adaptation and adjustment, depending on feedback. That is, and consistent with Dewey's theory, 'experiments' are driven and defined by feedback from information obtained by 'putting the situation to the test' and 'trying things out'.

The classroom researcher Professor Richard Pring makes a link between an experimenting teacher and Dewey's theory, writing "*Dewey's approach to pedagogy was essentially experimental (and for Dewey pedagogical) ideas had to be tried out and tested in practice*". (Pring 2007: 16). **24** Similarly, for Professor Donald McIntyre (1993: 41) "*learning to teach (is) a continual process of hypothesis-testing, framed by detailed analysis (of constraints)*". For both Stenhouse and McIntyre, hypothesis-testing and 'experimentation' are an aspect of the partly synonymous processes of teacher-learning or teacher-investigation, and at the same time part of an ongoing process of reflection, where reflection is defined by McIntyre as: (ibid: 42/43, but following Lucas) "*systematic enquiry into one's own practice, to improve that practice and deepen one's understanding of it*". **25**

In his (1988: 106 & 108) McIntyre again argues for the value of hypothesis testing (by pre-service teachers):

"a great deal of student-teachers' learning about teaching is at a level of semi-conscious trial and error learning, with 'correct' responses being shaped and reinforced by rewards and punishments from pupils (and) "the integrated school-university curriculum can and should be one of the explicit generation and testing of hypotheses ... about what can be achieved by acting in given kinds of ways in given types of situations"

McIntyre believed (following the tradition inaugurated by Stenhouse, but which also seems to have indirectly drawn on Dewey) that experienced teachers can benefit from 'experimental reflection' (in the sense described above) because a value of reflection is that it leads directly to change: "*if things go wrong, the logic of the study leads one to explore alternatives for one's action*" (1993: 46). Ideally, reflection becomes a default approach to teaching, and to learning from teaching – especially at the

²³ From The drowned and the saved (1988: 113-14). Partly quoted and partly paraphrased. This paragraph is developed in section 5. 2 below.

²⁴ Richard Pring, *John Dewey: A philosopher of Education for our time?* (2007), Continuum. This is a very helpful introduction to Dewey's thinking on education, and on the intellectual background to his thought. See especially pp. Xii; 1-7; 10-19; 48-49; ch. 3 (on experience and enquiry); **ch. 5**; pp. **140-158** (on pragmatism and on Dewey's philosophical position); and pp. 162-63.

²⁵ Donald McIntyre, Director of the PGCE course at the University of Oxford, and then Professor of Education at Cambridge University, was a leading empirical classroom researcher.

validation stage (sec. 3 above). The thinking of Stenhouse and McIntyre seems to have in common the core idea that reflection and ongoing 'research' are part of the same looping and self-correcting 'continual process' of learning from teaching. The teacher is *investigating* her classroom, 'investigating' used here in a wider sense than reductionist 'research' with the focus of careful design leading to data collection for analysis. If we follow the line of thought presented above, then not only are teaching and 'research' somehow intertwined, but it might even be argued that they cannot be kept separate from each other...

4.2 Enquiry, memories and Continuous Professional Development (CPD)

In this sub-section I try to link an understanding of teacher cognition with Dewey's theory of enquiry (see the footnotes in this sub-section for citations from the educational literature on teacher cognition).

If a teacher is taking decisions for classroom work, based on feedback from students, then we have a short-term loop in operation, as follows: Teacher's input (*which leads to*); some result, eg student output (*which leads to*); evaluation or scrutiny of the result (*which leads to*); modified input, and which so leads to new student output. However, if this loop is understood to take place over years, as a teacher gains experience and understanding, then a link seems to exist between specific enquiries, and with an enquirer who is growing and developing understanding of his/her specialism over time, that is, there may be implications in Dewey's theory for some conditions for CPD to occur. ²⁶ I will now explore further a connection between short-term enquiry and longer-term CPD, in the context of an enquirer drawing on *memories* of similar enquiries, taking an example from a dentist's work.

But can a connection really be looked for between a dentist's work or enquiries, and a teacher's? Yes, because if, as Dewey argues, there are similarities within enquiry in different fields, then this commonality presents an opportunity, by understanding enquiry in one field, to try to understand implications of insights gained for enquiry in another field. There are common processes at work, if only we can uncover them. Specifically, a craftsman or dentist's enquiries and long-term learning may have lessons (if we can see them) for understanding a teacher's enquiries and her CPD.

Recently I was able to observe an enquiring, problem-solving dentist at work, as I was the patient. My dentist, in carrying out her enquiry into my problem, made a tentative diagnosis (formulation of the problem and of action needed), and as treatment progressed, took several X-rays to get new information, and so tested

²⁶Note on teacher cognition. The educationalist David Berliner (1987: 61) observes that the following reflective strategies by a teacher, consistent with Dewey's theory of enquiry, may help her to learn from her experience, and to develop her teaching, over time: "*the ability to ask questions of oneself as one is performing some activity*" and "*monitoring one's own and others' behaviour in a setting*" and "*seeking alternative solution strategies to problems*". For critical and probing work on 'reflection' in teaching, see articles by Michael Eraut; Jan Bengtsson; and Max von Manen's *On the epistemology of reflective practice*, which are all in issue 1/1 of *Teachers and Teaching: Theory and Practice* (1995), edited by Christopher Day. For a probing overview of the concept of 'teacher-reflection' see Calderhead & Gates (eds.) (1993), *Introduction*, and also the papers which follow, especially by Donald McIntyre (1993), and paper 8 by Tom Russell. In researching this study I found the work of James Calderhead very perceptive and helpful for understanding issues in teacher cognition. On teachers' decision-making, see Calderhead (1984: ch. 1). For a survey of work on teacher cognition see Simon Borg (2003), and see Leinhardt & Greeno (1986), and Calderhead (1996).

whether treatment was working. She was working within Dewey's three-stage, self-correcting loop, and which has been introduced above.

Watching that problem-solving, enquiring dentist, I observed the loop at work:

• **Starting from the problem: diagnosis of the problem**

first, understanding of a problem through inspection and drawing on past experience of similar situations, this leading to a provisional understanding, or judgement, or knowledge claim, of the problem to be addressed; (the dentist compared evidence from my symptoms and X-rays with symptoms and X-rays which she had seen in her past experience).

• **Experimentation: diagnosis of the problem continued, and action**

second, mental consideration of plans of action ('thought experiments', see sec. 5. 1 below); followed by physically, tackling the problem. That is, my dentist did not begin work immediately, but first, apparently having consulted her memories of past experience, she formed hypotheses and 'hunches': she reflected. This seems to be how some other professionals develop, for example, a doctor treating an ill patient prescribes medication, observes the result, and then reconsiders or evaluates his prescription as well as perhaps the diagnosis, based on past experience of similar problems and similar evidence. During this process, he/she perhaps learns something new, which can be used in future similar situations.

• **Validation attempt:** My dentist then tested the result, and could then then see whether her interventions had worked, or whether the problems which she had defined within the problematic situation required a fresh 'determination' (ie, diagnosis), just as Dewey describes the process as working (1938: ch. VI).

Interestingly, my dentist's enquiry seemed to be carried out in the context of her longer-professional development. Dewey makes a link between solving a specific problem and longer-term learning or CPD: (1929: 149 my emphases)

"We are constantly referring to what is already known to get our bearings in any new situation ... every adult, irrespective of whether he is a man of science or not, carries in his head a large store of things known in virtue of earlier operations. When a new problem comes up, one habitually refers to what is already known to get a start in dealing with it" 27

Perhaps Dewey means by this the following: As an enquirer carries out his/her enquiry work, he/she seems to be mentally scrutinising his 'hunches' and proposals for action. In doing this, the intelligent enquirer seems to need to draw on his prior knowledge, this including memories of previous failures and successes of differing approaches to similar problems. So, enquiry is necessarily continuous and accumulative: that is, whilst the enquirer pays attention to the problem in front of him, he also needs to take into account what he learned in the past. In the context of a discussion of the work of Donald Schon (who influenced Michael Wallace [1990] in

²⁷ Dewey here is emphasising the importance of prior knowledge in thought and enquiry (see his (1910: 12) and also see Dewey (1938: 44-45). And Gail Kennedy, summarising Dewey (Boydston 1970: 83), writes: "... every inquiry involves a reference to the past. All inquiries require the use of memory".

EFLT), and of the work of James Calderhead, the classroom researchers Brown & McIntyre write (1993: 7 & 10, my emphasis):

“Schon's work (places) emphasis on the great importance of memories of previously experienced situations and on the far from straightforward use of these memories ... (and) Calderhead draws attention to ... repeated findings that teachers' knowledge tends to be structured in terms of cases, so that they have repertoires of significant or remembered situations, events and pupils which help them in dealing with new tasks or situations ...” 28

If, as seems to be the case, an enquirer often learns something new from a fresh problematic situation, it follows that her knowledge and understanding of similar cases is accumulatively developing. Her enquiries and her longer-term growth in understanding are related, and her specific enquiry and her CPD are part of a long term process of learning. (In his *How we Think*, Dewey regarded learning, thinking and enquiry as often synonymous enterprises, capable of being described and understood in the same way.)

I conclude that the description and understanding of enquiry given by Dewey is not only convincing and relevant for short-term teacher problem-solving enquiry, but that it seems closely linked to some understandings of CPD. Dewey's understanding of enquiry implies that 'knowledge' grows, for the individual, in a long-term and self-correcting looping process. In this sense, enquiries are accumulative as well as one-off undertakings. The process of reflection and of probing her students' problems and difficulties, drawing on past experience, will result, over time, in an inexperienced teacher becoming an experienced one. As a corollary, the teacher who does not enquire and reflect will not develop. What is learned is 'stored' [Dewey's word] for future use. Whilst there are certainly other conditions required for CPD to occur, constant referral to memories of past enquiries would seem to be one of them.

4.3 Re-conceiving teacher research

Anne Burns (2005) argues that the conception of teacher research should move forward 29. This evolutionary notion could allow us to re-conceive teacher research again, and again, and we could for example, I propose, deriving from the above arguments, broaden and re-conceptualise 'teacher research' as follows:

- Based on informal experience and observation in the classroom, and not on more formal investigation or experiment;

²⁸In the conclusions section of this book (ibid: 109), which reported on a major empirical study of teaching, Brown & McIntyre write (their emphasis) *“We can make no claims to have discovered anything about the **processes** of teachers' classroom thinking ... (teachers) were able to recall the **conclusions** of their classroom thinking about what to do, and how, and why (but) they could not recall their own mental processes”*. In other words, teachers were unable to observe their own subjectivity and their processing of information, which seems to have been subliminal and not open to being (empirically) observed and recorded, not even by themselves. Also see (ibid: 95, 106, 108).

²⁹ See Borg (2013: ch. 1, esp. pp. 18-22) on problems with teacher research, and see (Borg ibid. ch. 3) on different conceptions of teacher research. Also, see Borg (2003) for a survey of research studies on teacher cognition; & see his (2010).

- consider encouraging Dewey's 3-stage description of how knowledge grows, as presented above: *problematic situation; eventual knowledge claim; validation attempt*
- research/enquiry is ongoing, and looping (or 'spiral'), rather than an one-off event; it is a continuous and self-correcting process;
- research is not only about collecting information (empirical), but also about experimentally *thinking through* a problem situation, and thinking about approaches to solve it; (see 5. 2 below on 'thought experiments')
- teacher-research shouldn't try to imitate professional research, for example, dissemination of results through publication is optional;
- research/enquiry does not necessarily lead to immediate action, but rather to better *understanding* of the classroom and of the student's problems and of impediments to learning (see my 2015: sec 4):
- validation criteria can be less rigorous: a criterion of 'successful' enquiry is that a student's problem is resolved, i. e., validation is done at a local level against workable solutions to a problematic situation. (Sec. 3).

This might form the basis for a re-conceptualisation of teacher enquiry (and of how it should be evaluated), through a broadening of the concept of teacher 'research', leading to a merging with CPD. It may be better not to use the word 'research' for this kind of informal enquiry: one could use call it 'problem-solving enquiry' or 'informal classroom investigation', reserving the work 'research' for more formal projects with: a design stage; formal data-gathering; writing up; analysis of information or data; and publication.

Discussion If what goes on in a learning situation is sometimes *unspecifiable*, partly because of its complexity as Polanyi argues (1957; 1964; 1969), then enquiry which tries to capture this complexity with the aim of general claims to knowledge risks being overambitious in its aims, and insecure in its claims. But individual 'knowledge-for-oneself' may be a realistic objective (Cassirer: 1944: 3-11): A teacher on her own, in a given lesson, can perhaps learn *enough* from her students to understand what is needed in that particular and local context. She is *enquiring* (and validating, sec 3.3 above), enough for the needs of *her* enquiry. It was for such local enquiry that James and Dewey proposed 'pragmatic' features of enquiry (footnote in bold in sec. 3.1).

Objection It may be objected, can informal, local, real-time investigation count as "research"? The answer will depend on what is meant by "research". The teacher can, as argued above, and as a default approach, informally take in information which her class is providing, she can informally test out ideas, and so grow her knowledge or understanding, even within a single lesson. If 'research' is understood as 'systematic investigation' (Oxford Dictionary), then the kind of work just proposed above is 'research', because it is both systematic (it can be a default approach to teaching) and it is investigation. The enquiring teacher is building, long-term, her 'personal knowledge' ('knowledge-for-oneself') about teaching, and is not looking for general 'truths'. It follows that 'formal' teacher research (design; data collection, etc) is only one way of enquiry along a spectrum of 'teacher research': there are other kinds.

4.4 Reality check: are the proposals made for teacher research realistic?

Whilst Dewey's description of enquiry is quite complex, implementation can be, I have found (4.5 below), fairly straightforward. The re-conception of teacher research proposed here may, firstly, encourage more teachers to believe that they can be a 'researcher' and that, secondly, the ideas presented here can demystify 'research'. It may also give teachers an entry point and strategy for their longer-term CPD (above). However, in proposing any fresh approach to teachers one needs to ask: *Is this approach realistic?* and *Can it fit in with their existing approaches?* **30**

A proposal made to secondary teachers can only be claimed as realistic if it takes into account the constraints under which teachers work in secondary schools. **31** What are the constraints on doing research in secondary schools? What will prevent the teacher from being a researcher in her own classroom – what factors might impede this ambition? The three clusters of constraints listed below restrict the teacher in what it is possible to achieve – they are 'reality checks' (although not necessarily blocks) on the possibilities of researching the classroom encounter:

- (1) Lack of time, of funding and of access to professional development opportunities: e. g. , courses and seminars; reading materials;
- (2) a prescribed syllabus, integrated with regular testing, with the pressure to follow a programme and get results for her students (and this according to criteria she herself has not chosen) which will limit her freedom to experiment and try out new ideas. Similarly, a prescribed coursebook will also limit her freedom to try things out and experiment;
- (3) pressure from students: teenagers are often conservative in their expectations from teachers – they often want work and 'rules' explained, pressurising teachers to use transmission-style teaching styles; they may not respect a teacher who does not give them 'answers'; and they often have the underlying attitude of “*teach me!*”. Because of these expectations, trying out new ideas involves risk and many teachers settle down to a routine of 'preparing for the test'. All professionals risk their approach becoming repetitive, and it can be difficult to break away from teaching using routinised approaches where students 'pass the test', resulting in satisfied students, management and parents. **32**

If one compares constraints on teacher research in the state secondary with the private sector, I found in my own teaching experience that private-sector teachers often have much more freedom to experiment. There is often no marking; few time-consuming

³⁰ Brown and McIntyre write (1993: 15): “Teachers' existing patterns of classroom teaching are highly adapted to the circumstances in which they find themselves and the purposes to which they find they have to give priority. To have any chance of being perceived as practical, plans for innovation would have to take account of what is already being done - particularly what is being done well - in classrooms” This point is also put in Lortie (1975:77/78; & see ch. 7 on the teacher's standpoint).

³¹ On constraints on secondary teaching see the important educationalist James Calderhead (University of Lancaster) (1984: ch. 5) for an extensive discussion. On the importance of constraints in any kind of design, see Lawson (1980: pp. 75/76; 88 & 139). (Also on constraints in teaching, see the article by Alan Waters in this issue of *Radical TEFL*, section 3.2.)

³²For an entry point to the literature in mainstream education which explores issues in persuading novice teachers to move away from their preconceptions about teaching, see Ruth Ethell & Marilyn McMeniman's *A Critical First Step in Learning to Teach*, in Sugrue & Day (2002).

record-keeping administrative formalities; often (on short courses) no test to prepare for; and greater freedom to select both methods of teaching and materials to work from. As well as this, courses are often intensive, and needs may be different, which discourages repetition of approach, and settling into a teaching routine. Classes in the private sector are generally small and very cooperative and so flexibility is easier. In a word, private sector teachers can *experiment* more than in the state sector.

I have found, however, from working with secondary teachers, that none of the constraints described above will prevent a teacher from carrying out *informal* research as proposed above – although the same constraints however may quite easily prevent them from carrying out more *formal* research. I have also found (from experience of teaching in both private and state sectors) that whilst it is easier to experiment in the private sector, the secondary teacher can also experiment and try things out if we re-conceive 'research', and reduce the demands and conditions as follows (developing ideas introduced above):

- gather information informally: no formal data-gathering;
- reflect on this information as students work on their tasks; and so
- she can start to plan her next lesson as she receives feedback from the lesson which she is currently giving; and so as a general strategy, information received is used to plan her next intervention, meaning that;
- she can employ an informal loop system of trial-and-error enquiry;
- no time needed from her on writing up her work (which is only for her).

As argued above, the teacher-researcher, trying to informally understand her students failures and successes, has the following advantages and opportunities over the observer-researcher (see 3. 3. above): she can have almost daily access to her class; she can use her classroom and classes as a '*laboratory*' to try out and test ideas; [from Stenhouse and McIntyre, above]; she can see results almost immediately in real time so that no analysis of data is required; and in this sense she can simply try out ideas in a trial-and-error way. Her informal 'experiments' can be visible and recordable, or can be an unobservable 'thought-experiment'. This can give the problem-solving teacher a repertoire of approaches, successes and failures from similar problems to draw on. So, what is learned can then be applied to future similar problematic-situations. **33**

4. 5 Assessment or evaluation of teacher research

Although, I have argued, it may be both possible and more achievable to do 'teacher research' without any written records, a qualification-awarding institution will normally require some written evidence in order to give students a formal credit for teacher research. I formally assessed my pre-service student-teachers in Poland (1993-95) as follows: The Krakow Jagiellonian University, which supervised our teacher-training college (Krosno NKJO), required students to write a substantial final-year dissertation. I asked my students to write their dissertation under the following headings: (Note the similarity of these stages to Dewey's stages of enquiry above)

- (1) a problematic situation or difficulty *in their own students' learning*;
- (2) a judgement or hypothesis as to how the problem could be solved;
- (3) an attempt to address the problem by testing that judgement/hypothesis;

³³ For a discussion and comparison of advantages and disadvantages of teacher and observer research, see Hammerlsey in *On the teacher as researcher* (1993b: esp. 218-19).

- (4) a report on what happened;
- (5) conclusion and discussion.

To earn a good mark, the problem did not need to be 'solved', but evidence of reflection-combined-with-action was needed. About 25% of the class received 'distinctions' from the examiners. During the two years I was with them I saw my student-teachers learn to regard their classroom as a workshop, or in Stenhouse's word, a laboratory, and I watched them develop into reflective, enquiring teachers. So, in this context, I saw Dewey's theory validated.

SECTION 5

THE DEEPER SIGNIFICANCE OF DEWEY'S WORK FOR UNDERSTANDING AND CONCEIVING TEACHER ENQUIRY

I have now completed a presentation of Dewey's description of how enquiry works. I then extrapolated from his general theory of enquiry to teacher enquiry, and then proposed and discussed some practical examples and implications for teacher research. However, for supervisors of enquiry by others into the classroom Dewey's work rewards further attention. He was primarily a philosopher and in this section I try to place his philosophical thinking (in that it contributes to an understanding of how enquiry works) into a context of the history of thinking about enquiry.

5.1 Reason and observation need to work together in enquiry

A theme (deriving from Kant) which runs through modern-era philosophy, in its study of the growth of knowledge, is that empirical knowledge (or observation, or sense perception) is, alone, unreliable as a way of making knowledge claims. Within EFLT Judith Suissa (2006) argues that empirical *and rationalist* approaches to enquiry need to be linked, and she quotes:

“what is often seen as a straightforward empirical matter is often fraught with problems that are philosophical in nature – unclear concepts, questionable assumptions about verification of conclusions”. 34

Dewey, following Kant (and on whose psychology he wrote his doctoral thesis) believed that observation under controlled conditions (ie empiricism), since about 1600, had become too dominant (Dewey 1929: ch. 1). Dewey argued that 'genuine enquiry' did its work by *a synthesis and integration of experience (or observation) with reason (or reflection)*. That is, Dewey observed that 'genuine inquiry' uses, in a complementary way, both 'experiment' and reason. 35

Much published research on second language acquisition (SLA) arguably focuses on information-gathering (whether qualitative or quantitative) at the expense of a balancing rationalist/reflective component. In this sense, research studies risk being insecure and invalid in their knowledge claims. Within such SLA research, the neglect of a rationalist (ie, reasoning, or reflective) component seems to occur mainly at firstly the design stage (ie, a neglect of problem-definition and assumption-

³⁴ The quote, in Suissa (ibid: 553), is from Richard Pring (2004: 162), in Bridges (1997).

³⁵ This is argued for by Kant, see Dewey (1929: 136-45). Dewey calls this, simply, '*reflective enquiry*'. See Popper (1972: 180-81 & 186-88), following Kant, for the need for reason to complement observation, and for observation to complement reason. On problems in relying solely on observation or empiricism for knowledge, see Dewey (1910: ch. 11, *Empirical and Scientific Thinking*).

checking), and secondly at the validation stage of research (argued in my 2105: secs. 3 & 4). Dewey, sceptical of both observation alone or reason alone as routes to knowledge, explored how the two strategies, in 'genuine inquiry', actually work together.

5.2 'Thought experiments' For Dewey, one can experiment with *an idea*, and in this way combine experimentation and reason, and so carry out 'thought experiments'. This collocation of 'thought' and 'experiment' is quite startling, as one normally regards an experiment as something material. However, 'experiment', in the sense of mentally following through the implications of an idea (and this including a thinking validation attempt) was, for Dewey (and based on reports of how scientists actually do their work), an entry point into understanding how we, in fact, actually enquire and learn. Dewey pointed out that, in looking at a problem, we constantly ask ourselves "*What if ... ?*" questions: that is, we experiment *with our ideas*, in the context of possible actions and their possible results, and this hypothetical-experimental work makes up a large part of the enquirer's thinking. Once the seminal significance of '*thought experiments*' is grasped we have an entry point to appreciating how a lot of human thinking, action and learning actually works. **36**

Can this idea be relevant to understanding the EFL classroom? Immediately before many teacher interventions (an observer will note, for example where a student has asked for help with a problem), there is *a moment of silence* from the teacher (it may be half a second) where the teacher seems to reflect. What is going on in the teacher's mind during this silent moment? Is the teacher taking in information, for example recalling the student's past difficulties and successes, and using this information to come to a decision? Is she drawing on previous experience of similar situations to come to a decision (and this experience will probably be vast)? If we follow Dewey's theory of enquiry, the teacher is perhaps experimenting with ideas (like a chess player planning a move), and *thinking through* the implications of the alternatives that are available to her. Such 'thought experiments' are part of her strategy of enquiry. **37** (It is not proposed that teachers *should* work in this way, rather, the point is being put that experienced teachers already do this, and that in understanding teacher enquiry it would be good to take advantage of what teachers already bring to their work.)

5.3 The recovery of enquiry into local knowledge To investigate the EFL classroom encounter in a formally experimental way, requiring data collection and analysis, may be too ambitious and quite unrealistic, with too many variables to handle as well as complex methodological problems to take into account. Such attempts are perhaps a legacy of the success of the scientific revolution. On the other hand, an alternative of informal experience might be seen as inferior to controlled

³⁶ On 'thought experiment' see Donald Freeman (1998: 28): "*Albert Einstein ... coined the term 'thought experiment', in which you simply think through a situation, research issue ... a great deal of research work is possible using ones' own mind*". There is a literature in the History of Science which describes how scientist-enquirers work, and a lesson from these studies is that material or laboratory experiments are only a part of their work. Much scientific enquiry is more mental than physical. A good example is Kepler's work, see Arthur Koestler's *The Sleepwalkers*, pp. 317-348.

³⁷ See the footnotes in sec. 4. 2 above for relevant citations on teacher cognition.

experiment with defined variables, because claims arising from experience cannot be quantified, and public validation is not possible. 38

What other strategies are available to the teacher? For a practical activity such as teaching, the teacher normally has no ambition to persuade others through public validation, and so she can choose an enquiry strategy which will allow local rather than more general validation. Dewey, and the pragmatic tradition which he draws on, offer a framework for doing this (argued in sec. 3 above). The project now, Dewey understood, becomes rather for the individual, from his or her perspective, to search for what works for him or her, in the context of *addressing specific problematic situations*. For the teacher to be at the centre of her 'research' allows a return to an eclipsed tradition of enquiry based on experience in a localised context, with investigations using as evidence local and available experience. This old and neglected tradition of enquiry, based on experience, focused on practical problems and issues, is discussed by Stephen Toulmin (1990: 29-36; 70-83 & 168-93). 39

5.3.1 Dewey believed that '**experimental inquiry**' (see 4. 1. 1 & 4. 2 above), and combined with reflection, had much to offer searches for local knowledge, centred on finding solutions to real problems. The question is raised, have some valuable aspects of 'scientific' or 'experimental' enquiry strategies been discarded unnecessarily? Has there been an over-reaction against 'experimental', or 'scientific', enquiry? There exist some important insights which, over centuries, 'scientific' research came to see the value of (and which Dewey tried to recover), and which current 'groupthink' on qualitative research in the academy, apparently bewitched by post-modern influences, and not familiar with past roots and traditions in research, has arguably neglected:

1. the enquiry strategy of **probing and trying something out**, in a repeated and eventually fruitful way, with the condition that . . .
2. the need for **self-critical reflection** in the sense of using *validation procedures* (hardly discussed in much EFLT research literature): 40
3. being **aware of one's assumptions** and of other sources of bias and of contamination of research; (See Taleb (2007), *The Black Swan*)
4. 'experimental method' digs beneath the surface of things to **discover new properties or relations or recurring patterns** - and so can put specifics into a larger and more significant context; 41

³⁸ **On methodological problems and pitfalls in doing teacher research, see mostly the work of Martyn Hammersley, especially his 1993b; and also his 1986; 1989; 1990; 1992 & 2007; and also the important Scarth and Hammersley (1986). Nuthall (2004 & 2005) can be consulted. Some of these problems are so difficult and apparently intractable that it would seem unrealistic to expect a teacher to even be aware of them, let alone solve them. A glance at much published research on second language acquisition will show that the problems are not even mentioned, and certainly not confronted, arguably making results claimed invalid and unhelpful.**

³⁹For an argument for the primacy of experience, see ch. 1 of Dewey's *Experience and Nature*. Or see Pring (2007: ch. 3). But a problem with experience is that (Chalmers: 1982: 25) "*What an observer sees ... depends in part on his past experience, his knowledge, and his expectations*" and this presents a problem for experience to be a reliable route to understanding: for as pointed out by Kant, what a person already 'knows' introduces itself into his experience (see Tarnas *ibid* 341ff.). The influence of Kant can be seen in Dewey's understanding of knowing as reconstructing. Dewey (and Piaget), influenced by the late 19th century evolutionary idea of knowing as adaptation, built on Kant.

⁴⁰ See my (2015: sec 3) on validation, which this study has tried to develop. This study is the third part of a four-part enquiry into why students fail to learn EFL

5. combining empiricism with reason: “the emphasis on ... verification (which characterises empirical method) offers the best protection against ideological bias masquerading as science” 42

A helpful research approach for a teacher in understanding the problems of her students may be to combine the strengths of 'experimental' method with the strengths of experience, as routes to knowledge claims. 43 This approach may bring us full turn to 'empiricism', *which was originally centred on experience* within a local context. The tradition (in the academic world before about 1600), of learning from raw and local experience was however lost due to the successes of the 17th century scientific revolution and, according to the historian of scientific ideas Stephen Toulmin, research before about 1600 was focused rather on “*four different kinds of practical knowledge: the oral, the particular, the local and the timely*” 44 .

For C. S. Peirce, a pioneer of fresh understandings of methods of scientific enquiry, and who influenced Dewey “*the word 'science' (means) not knowledge, but the devoted, well-considered life-pursuit of knowledge*”. (Paul Croce: 1995: 185). A feature of the American school of 'pragmatic' philosophy (Peirce, William James, and Dewey) is that it pays great attention to methods of enquiry, and it regards science and enquiry to be more about method and process than about results. Research in language studies gives much less attention to its methods, and underlying issues in enquiry, than research in, for example, history, sociology and the mathematical sciences. There is a large literature on issues in research in these fields, and almost none in language acquisition studies - and where there is discussion it is at a technical level (e.g., Dornyei 2007), rather than probing pitfalls in research. (See especially Martyn Hammersley for work on pitfalls in doing research in the classroom).

5.4 Concluding discussion Dewey's work was part of a movement of thinking on enquiry which, firstly, challenged claims to certainty, made through the route of some 'objective' spectator enquiry into human affairs; and which, secondly, argued that the most helpful enquiries, into human affairs, are often local and 'subjective'. Dewey, and other students of methods of enquiry (eg, C.S. Peirce, William James; Dilthey; Jaspers 1986; Polanyi (1957, 1964, 1969) understood that the era of claims to certainty and 'objectivity', in the study of people, were over. Dewey's main statement on this shift was given his 1929 Edinburgh Gifford Lectures, *The Quest for Certainty*, and the reaction against certainty is presented and discussed in three fascinating books: by the American William Barrett (1987), and in his other

⁴¹ From Prawat (1997: 20-21), in the context of a discussion of Dewey

⁴²Quoted from from Alan Sokal & Jean Bricmont, *Intellectual Impostures* (1998:191,n. 270). See esp. the Epilogue. My emphasis.

⁴³ Dewey writes in *Studies in Experimental Logic* (1916: 20, EMEREO reprint), “Genuine intellectual integrity is found in experimental knowing ... it is not safe to dissociate knowledge from experiment nor experiment from experience”.

⁴⁴ Quote from (Toulmin 1990: 30). A recently-published history of the scientific revolution by David Wootton (2015: 346-48; 394ff.), *The Invention of Science*, traces how reliance on experience (or simple observation) was replaced by the contrived and artificial 'experiment' under controlled conditions, often used in language acquisition research studies, without discussion of methodological assumptions.

work; by the British philosopher Stephen Toulmin (1990); and the origins in the USA are explored by Paul Croce (1995).

We find in these protests against claims to objectivity and to certainty (which James and Dewey encapsulated in their 'pragmatic' description of enquiry) some essential elements of some post-modern ideas about 'subjective' enquiry such as: (1) helpful enquiry is *local* and context-bound; (2) enquiry as working from a *standpoint*, eschewing the stance of a dispassionate and 'objective' spectator; and so (3) exploring the potentialities of 'subjective enquiry'; (4) an approach to enquiry aimed at helping individuals find *knowledge-for-themselves* through their own solutions to their own problems. A focus on such subjective approaches to enquiry, starting from a particular standpoint, is influential in much social and educational research now.

However, Dewey would have argued that exclusively subjective enquiry risks being insecure, because subjective strategies can easily lack both a rationalist/reflective, and a self-correcting (validating) component. Dewey's theory, arguing for the unity of enquiry, implies that it is unnecessary to choose between a 'scientific / experimental' and a 'subjective' approach to enquiry. Rather, his theory seems to open the way for the dual approaches of, on the one hand, 'scientific'/ experimental (which are self-correcting) and on the other hand, 'subjective' strategies (which respect the local) to be combined, and so to reinforce each other. This could result in a reliable and self-correcting understanding of problem-solving teacher enquiry, well-suited for local situations, based on teacher and student experience, and where there is no ambition to make claims beyond finding solutions to the difficulties, problems and failures of one's students. The way to achieve this synthesis, Dewey argued (and to summarise his theory) is by welding 'experimental / reflective' enquiry to a local standpoint and to a local problematic situation.

Summary and link to a follow-up study I presented Dewey's understanding that there is a unity to enquiry. I then explored implications of his theory for teacher research. Dewey regarded learning, also, as enquiry (1910), and this insight could be an entry point for an exploration of how his observations and arguments on enquiry might be extrapolated to an understanding of how second-language learning takes place. ⁴⁵ A study in preparation will draw from Dewey's understanding of enquiry, as introduced here, in a study of learning and failing to learn EFL, and will draw also from literature in mathematics education on learning and student failure.

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⁴⁵Learning as a process. In his *Studies in Experimental Logic*, (1916, EMEREO reprint, pp. 24, 43, 46 & 50).), Dewey understands the learning as a *process* which includes (paraphrased in bold, and in italics for direct quotes): **guessing; classification of new information; reflection against other data; “running over various ideas; developing new suggestions; comparing with one another”**, carrying out **“thought experiments”**; experimentation and trial and error; hunting for insights and for unifying principles; looking for analogy with what is already known; comparison; and abandoning attachment to an idea.

APPENDICES

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Bibliography

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APPENDIX [A] THE TWO WAYS OF UNDERSTANDING 'THE GROWTH OF KNOWLEDGE'

Discussion of a possible objection to Dewey's Theory of Enquiry

1. The argument in my study explored implications for EFLT teacher research of Dewey's claim that there are similar, core stages in the way in which a student, a craftsman, a layman and a scientist grow their knowledge. It might be objected that Dewey is guilty of a blunder here, as it is widely assumed that different fields grow their knowledge in different ways – for example, it is said that historian and physicist use different 'ways' to enquire and grow their knowledge, and that one must be careful not to confuse the two.

An entry point to replying to this objection is to appreciate that there are two approaches to interpreting the question '*How does knowledge grow?*', and that in the context of this question, the question word '*How?*' can be understood in two different senses:

(A) '*How?*' in the sense of: *By what ('external') stages?*; and

(B) '*How?*' in the different sense of: *By what ('internal'), cognitive, processes or strategies on the part of the individual enquirer?*

This is not a straightforward distinction to appreciate at first sight, but interestingly it is explored in the International Baccalaureate Diploma course (which I taught for two years in Poland, 2009-11), in the compulsory 100-hour course '*Theory of Knowledge*' [TOK], and where students are asked to understand the distinction above, in the context of enquiry in their own school subjects. Students are introduced in TOK to the idea that whilst there is a core structure to the *external* stages of the growth of knowledge [Dewey's stages as given in the Introduction to my study], the psychological, mental/internal strategies and processes by which different fields enquire (or more precisely, the combination of strategies) are different, as each field lends itself to different strategies of enquiry.

Generally speaking, the external stages, as in (A) above, are universal [if we follow Dewey], whilst the mental/internal and psychological-cognitive processes or strategies, as in (B) above, are normally the following three: observation-linked to-empiricism/experience; reason/reflection; and 'intuition', - or a combination of these.

These psychological strategies (B) seem to be the motor by which enquiry moves through the three stages in (A) above. (The 'stages', (A) may be called the 'logic of discovery', and the 'strategies' (B) called the 'psychology of discovery'.) The experimental sciences, for example, rely considerably on observation, but a rationalist element (or 'reflection') is important at the validation stage. Mathematics uses a combination of reason and 'intuition', with the weighting of this combination seeming to depend on the level of difficulty at which work is being done. History relies, in part, on observations and readings of available sources, followed by critical reflection on the reliability of those sources– and so on. But all of these (psychological/cognitive) strategies, or '*ways of knowing*' (as they are named in TOK) can mesh well with Dewey's stages of (a) problematic situation'; followed by (b) an eventual knowledge claim; followed by (c) some validation attempt; and this hopefully giving a self-correcting process to fresh (but always provisional) knowledge claims. This understanding of enquiry, or the growth of knowledge, fits well with Popper's insight that although we cannot make certain claims to knowledge, we can, following this three-stage looping process, identify mistaken claims to knowledge (Magee 1973).

2. The distinction between these two approaches to understanding 'how' knowledge grows [(A) and (B) above] can be perhaps shown by analogy, looking at a mountain walk. Imagine three groups of climbers who walk from youth hostel A to youth hostel B, and imagine, with a birds-eye view, that they take exactly the same physical route, passing the same farms and walking through the same valleys. But although, to the birds-eye observer,

the *routes* are the same (Dewey's stages), the *strategies* which the three groups use for getting from A to B (or combination of strategies) might be different.

One group may rely on maps and compasses. A second group may use a satellite direction finder, and sometimes a map. A third group may have a professional guide, who knows the route from memory. So, their routes to 'knowledge' (ie. , to their destination) may have the same core stages, but the ways in which the stages are navigated are different. In the same way, the historian and physicist employ different strategies (processes) or combinations of strategies in their enquiries, but they both respect core stages and ask themselves core questions, such as: *Is my problem clearly defined? Can I trust the evidence on which I base my judgements? Am I open to re-conceiving my conclusions? Am I self-critical of my progress to date?* etc. The mountain walker, for his own safety, is continually asking himself such questions, and so is the experienced researcher or enquirer. .

3. Dewey (and William James) were particularly interested in how the individual (without the support of a community) enquires. If the teacher was, as a condition of her learning, part of a community, the process becomes a social process, and so rather more complex. However, although one would perhaps wish that teachers would work together to learn, in my experience of secondary schools this does not normally happen. During their breaks secondary teachers often talk about pastoral problems of individual students but, in my experience of working with teachers in secondary schools, they rarely discuss their teaching approaches with each other. (See Lortie, *Schoolteacher*, (1975: 76-77)

4. Also, it is interesting that Dewey (drawing from William James) arguably solved the problem of validation (warranting) for local and individual knowledge claims - by reducing the criteria for successful validation. [See sec 3 of the study above; and sec. 3 of my {2015}]:

- Firstly, he argued that a sufficient criterion for validation was successful action.
- Secondly, validation did not require an *explanation* of why the action worked: that it works, in a local context, is sufficient.

5. Teachers may be the kind of enquirer that Dewey was thinking of (and Dewey was the main educational reformer in the USA in the 1930s). A teacher: largely works alone; she is trying to help her individual students solve specific problems; she has evidence in the form of student output to base her judgements on; she knows that students often fail and that she will need to try again. A reflective, enquiring, teacher is continually moving through the three stages as in (A) above, in a self-correcting process.

At the same time, a teacher is using at least three *psychological* or mental strategies (observation, reflection & intuition): To help her get information and to reflect, the teacher:

- has her students and their work to *observe*; she
- can use *reason* to help her self-critically reflect on both that information and conclusions to draw from it; and
- she can use *intuition* or a 'feeling' for what is going on to help her make her judgements, or to amend or disconfirm them.

But for Dewey, the 'logic' or architecture of her enquiries have core elements, whichever psychological or cognitive strategies or processes are used.

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APPENDIX [B] (Bibliography is in the e-version of this *Radical TEFL*)
DEWEY'S THEORY OF ENQUIRY CONTRASTED WITH ACTION RESEARCH

There are points in common between Dewey's description of how enquiry proceeds and some proposals by the Action Research movement (AR), but from my study of work by Wilfred Carr and John Dewey on enquiry I would argue that AR, by comparison with Dewey, neglects areas into which Dewey offers revealing insights:

- AR focuses on helping address *teachers'* problems, and does not seem to be designed to address and understand *student* problems. (sec. 1 below)
- the significance of starting from problems (sec. 2 below)
- the need for validation or scrutiny of knowledge claims (sec. 3 below)
- (A further significant difference between Dewey and AR on enquiry, but not discussed here, is that Dewey's theory is a claim to a *description* of how enquiry work -and so based on reality - whilst AR is a *prescription*.)

1. Neglect by AR of the student.

Within some AR literature the teacher, and not the student, is constantly referred to. Referring to the risk that the teacher will put her own problems above those of her students, Martyn Hammersley, critiquing the claims of AR, writes: **46**

“The knowledge that teachers have, will have been processed implicitly, and to a large extent on the basis of practitioner concerns, and may involve misconceptions that serve, or are relevant to, those concerns”.

Kemmis & McTaggart concede: *“Classroom Action Research is sometimes criticised for the prominence it gives to teachers’ knowledge in comparison with other views of what is happening in schools”* **47**. In the paper in which this observation is written, the focus is on teacher as *researcher of herself*, and the word ‘learner’ or ‘student’ is only used once. In another paper on Action Research by Stephen Kemmis the word ‘student’ or ‘learner’ appears in only one paragraph, and the word ‘teacher’ occurs over 40 times. **48** From this small but perhaps typical sample of work on AR it seems that the Action Research movement often seems to be largely orientated to issues affecting the teacher, and the problems of the student are not prioritised. So, AR has not been exploited for enquiries into understanding *student* failure. AR is designed for teachers, but Dewey starts from the students’ interests, and calls the student ‘the sun’, around which everything else must turn around.

Further, AR assumes a metaphor of teaching as about **action**, suggesting that classroom and learning problems will be addressed by a teacher changing her actions. However, as argued in my (2016), and drawing on work in mainstream education, this is an arguably unreflective and naive conception of ‘teaching’. Teaching may be about **less action** and intervention from the teacher, and rather, be about ‘*handing over*’ to the student. It follows that if, as is often argued in mainstream education, teaching cannot be understood without an understanding of learning, then a teacher who wants to solve her problems (in the sense that these problems come from her students’ learning difficulties and learning problems) should arguably be focusing on and trying to understand and address *her students’ problems*, and not her problems....

2. Neglect by AR, compared to Dewey, of diagnosis of problems

AR had its origins in the world of industry, where it was used to investigate a problem met in practice (Dewey’s ‘problematic situation’), with the aim of proposing some course of action to resolve that problem. However, argued above, in AR problems seems to be understood as

⁴⁶From Hammersley’s key paper *On the teacher as researcher*, (1993b: 218-19)

⁴⁷In *Denzin & Lincoln, Participatory Action Research*: p. 569

⁴⁸*Kemmis [1987], paper 12 in Hammersley [1993a]*

being the teacher's (the client is neglected) whereas if the real problems met in the classroom encounter really belong to the student, then until students' learning problems have been identified and understood, and a clear problem diagnosed for enquiry, a research project in the classroom cannot begin its work.

It is for this reason partly that Dewey focuses on *diagnosis* of the 'problematic situation' (sec 1 in main text above), with problems extracted and probed (through questioning) as investigation continues. An essential insight into enquiry, for Dewey, is an understanding of how an enquirer diagnoses problems. Hammersley writes (1993b: 218-26) "*there is more to teaching (than enquiry) and the other parts ought to be valued more highly (for example) diagnosing learning difficulties*"; (my emphasis). In the main text above (sec. 1) I have quoted some of Dewey's analysis on *how* the process of enquiry actually starts from problematic situations in research. AR, while it advocates starting from problems, does not offer an understanding how this is done. Compared to Dewey, the understanding of the research process by AR, in this respect, is superficial.

3. AR, compared to Dewey, neglects validation (scrutiny) 49

AR nowhere, so far as I can find, offers a thorough discussion of how teachers can validate their AR research conclusions, nor of the need for validation, nor an awareness of issues involved in scrutiny or validation of claims arising from AR. With the exception of work by Hammersley, the literature in Education on AR which I consulted is silent concerning the limitations of qualitative research (for example, see the largely unselfcritical and unreflective articles in Denzin & Lincoln (ed)(2000, 2nd ed.).

Further AR often seems quite un-selfcritical of its own method of enquiry, and I have not found in AR literature exploration, discussion or even identification of the limitations and weaknesses of the claims of AR *as a research method*. Similarly, in work by contributors to the often-cited Denzin & Lincoln (ibid), there is a lack of reflection on claims made for critical theory, from which much AR derives its underpinning. Dewey, by comparison, consistently keeps issues of validation in mind. (NB: For work on pitfalls in doing research, see the footnote in bold in sec. 5. 2 above: Martyn Hammersley's work here is the most significant)

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⁴⁹Footnote: the need to scrutinise some claims in Carr & Kemmis (1986).

(Carr, W. & Kemmis, S. (1986), Becoming Critical: Education, Knowledge and Action Research (especially pp 55-58; 66-75 & chapter 4). . . .

A close reading of Carr & Kemmis, for this writer, suggests that the book is in two separate parts, and that the conclusion concerning AR in the second half of the book do not follow from the analysis (which derives from critical theory) given in the first part of the book. The first half of the book (on philosophy) seems to have been drafted by Wilfred Carr, and the second half by Stephen Kemmis, and the book is sometimes, without discussion, cited in EFLT AR research studies as a definitive statement concerning AR, but perhaps Carr & Kemmis is not so often read. Whilst Carr & Kemmis draw from critical theory in their early chapters, however they do not, in that book, or elsewhere that I could find, critically examine the presuppositions of critical theory. (See especially the argument and claims made in ch. 4)

According to Elliot & Sarland (1995: 380), within mainstream education Wilfred Carr and Stephen Kemmis are, according to a sample of teacher researchers, "*top runners ... in a very small number of people (who have) a very wide influence (on AR)*". However, they write (ibid:372) "*the claims of (AR) have not been subjected to systematic study*". See esp. (ibid: 373). Martyn Hammersley also offers a critique of AR, teacher research and of Carr & Kemmis (1986) in a key paper (1993b: esp. 235-45) On the teacher as researcher .

[For significant work by Wilfred Carr see his (1983) on educational research; and his (1997a), (2004) & (2007); and also the first two papers (on theory and practice in teaching) in his For Education (1995). Professor Carr is Emeritus Professor at the University of Sheffield Dept. of Education, and the Editor of the journal *Pedagogy, Culture and Society*]

BIBLIOGRAPHY

I found the following texts (or extracts as cited) helpful and relevant in preparing this essay and the appendices. Most of the books cited (eg, by Dewey) are available on Amazon. The easiest and fastest way to follow up this bibliography and the bibliographical footnotes cited in the text is to spend a few days at the Welsh National Library in Aberystwyth, which is open to anyone with an UK address.: Go to www.llgc.org.uk for the library catalogue, and telephone 01970.632800 for information. (See my [2015: 31] for further information about this world-class library).

AM

Allwright D & Bailey K (1991: 48-50) Focus on the classroom: an introduction to classroom research for language teachers, CUP

Allwright, D. & Hanks, J., The Developing Language Learner: an Introduction to Exploratory Practice, pp. 52-57 & 176-81. An exposition of Allwright's teacher-research approach called 'Exploratory Practice'. Palgrave Macmillan.

Archambault, R.D., (1964)(ed.), John Dewey on Education: Selected Writings, Random House, see pp. xiv – xx for a clear summary of Dewey's theory of enquiry

Atkinson P. & Delamont S. in Hammersley M. (1986)(ed.), Bread and dreams or bread and circuses? A critique of 'case study' research in education

Atkinson T. & Claxton G (2000), The intuitive practitioner, or the value of not always knowing what one is doing pp. 1-12

Bailey, R et al (eds), (2010), The SAGE Handbook of the Philosophy of Education, Sage Publications. Chs 1-4.

Barrett, William (1987), Death of the Soul: From Descartes to the computer, OUP

Barrow, R., (1981), The Philosophy of Schooling, ch.6, Wheatsheaf. Clear, early statement on the limitations and dangers of empirical research in education

Barrow, R. (4th ed., 2006), Philosophy of Education,(Chs.13 & 14) Routledge

Berliner, David C., Ways of thinking about students and classrooms by more and less experienced teachers, which is ch. 2 of Calderhead (ed)(1987), esp. pp. 60-61

Blake, N (1997), Research, Development and Tacit Capability in the Educational System, *Cambridge Journal of Education*, **27/2**, esp. up to p. 227. A critique of Action Research, from a perspective of the world of industry.

Borg, S. (2003), Teacher Cognition in Language Teaching: a review of research on what language teachers think, know, believe, and do. *Language Teaching*, **36**, pp. 81-109. Has a useful bibliography. Also see Calderhead (1996)

Borg, S., (2010), Language Teacher Research Engagement, *Language Teaching*, **43/4**. A critical overview of teacher research

Borg, S. (2013), Teacher Research in Language Teaching CUP. Chs. 1, 3 .8 & 9

Boydston, Jo Ann (ed)(1970), Guide to the Works of John Dewey, esp. pp 31-36 & 63-66. Southern Illinois University Press.

Bridges, D. (1997), Philosophy and Educational Research: a Reconsideration of Epistemological Boundaries, *Cambridge Journal of Education*, **27/2**. Argues that critical reason is a method of research, needing to be combined with empiricism. [Also see W. Carr {1997a}, the rest of this issue of *Cambridge Journal of Education*, and Griffiths (1997), below].

- Bromme, Rainer, Teachers' assessments of students' difficulties and progress in understanding the classroom, which is ch. 5 of Calderhead (ed)(1987). On teachers' views of student understanding.
- Brown, Sally (2005), How can research inform ideas of good practice in teaching .. ?, *Cambridge Journal of Education*, **35/3**, esp. see pp. 396-end.
- Brown, S. & McIntyre, D., (1993), Making sense of teaching, Open University Press. By two leading classroom researchers. Ch. 1, & pp. 108-10. The argument in this book is developed in Hagger & McIntyre (2006: chs. 4 & 5). **Key**.
- Burns, Anne, (2003), Beliefs as Research, Research as Action, Beliefs and Action Research for Teacher Education. In Beaver, and Byrony, (eds) (2003), The Role of Research in Teacher Education, pub, IATEFL Research SIG
- Burns, A. (2005), Action Research: an evolving paradigm? *Language Teaching*, **38**.
- Burns, A., (2010), Teacher Engagement in Research: published resources for teacher researchers, *Language Teaching*, **43/4**
- Bygate, M (2001)(ed), Researching Pedagogic tasks, Longman. See his opening introduction.
- Calderhead, James (1984), Teachers' classroom decision making. Chs. 1,3 & 5. **Key**.
- Calderhead, J. (ed)(1987), Exploring Teachers' Thinking . Cassell. Papers 2 &4; & pp. 96-101. **Key**.
- Calderhead, J. (1988)(ed.), Teachers' Professional Learning, for the paper by McIntyre (1988), Designing a teacher education curriculum ..., Falmer.
- Calderhead J.,(1996), Teachers: Beliefs and Knowledge, in Berliner D.C. et al (1996)(ed), Handbook of Educational Psychology, p. 709, Macmillan USA. A survey of research on Teachers' Thinking/cognition [Also see Borg (2003)]. Many issues raised here.
- Calderhead J. & Gates P. (ed) (1993), Conceptualising Reflection in Teacher Development The Falmer Press
- Carr, David (2003), Making sense of education, Routledge
- Carr, David (2010), The Philosophy of Education and Educational Theory, in Bailey ed (2010), which is a reply to Wilfred Carr (2006a).
- Carr, W (1983), Can Educational Research be Scientific?, *Journal of Philosophy of Education*, **17/1** **Key**. A survey of different traditions in research.
- Carr W (1997a), Philosophy and method in Educational Research, *Cambridge Journal of Education*, **27/2**. He argues for a return of critical reason to educational research. [See Bridges above, and Suissa]
- Carr, W, (2004), Philosophy and Education, *Journal of Philosophy of Education*, **38/1**
- Carr, W, (2006a), Education without Theory, *British Journal of Educational Studies*, 54/2 (But see a reply by David Carr [2010] in Bailey et al (eds).
- Carr, W., (2006b), Philosophy, Methodology and Action Research, *Journal of Philosophy of Education*, **40/4**
- Carr, W (2007), Educational Research as a Practical Science, *International Journal of Research Methods in Education*, **30/3**
- Carr, W. & Kemmis, S. (1986), Becoming Critical: Education, Knowledge and Action Research (especially pp 55-58; 66-75 & chapter 4), Falmer Press (For a critique see Hammerlsey ed (1993)(*'On the Teacher as Researcher'*)).
- Cassirer, E (1944), An Essay on Man: An Introduction to a Philosophy of Human Culture. Yale University Press. pp. 3-11

- Cassirer, E (2000), The logic of the cultural sciences. Yale University Press. See the translator's introduction & pp. 1-19. On some limitations of 'scientific method'.
- Chalmers, A.F., (1978 2nd ed.), What is this thing called science?, Open University Press. Chs. 5 & 6, & esp. pp 38-79 for a clear discussion of falsificationism and its limitations. Also a section on thought experiments
- Claxton, G., (1996: 47-53), Claxton, G. (1996), Implicit theories of learning. In Claxton , G. et al (eds) (1996), Liberating the learner: lessons for professional development in education, Routledge
- Cohen, Andrew (1984), Studying Second-Language Learning Strategies: How do we get Information? *Applied Linguistics* **5/2**. Esp 101-105. On researching internal processes.
- Confrey, J, (1991), Learning to Listen: A student's understanding of the powers on ten, in Glaserfeld, E. von, Radical Constructivism in Mathematics Education (1991)
- Cooper, P. & McIntyre, Donald (1996), Effective teaching and learning: teachers' and students' perspectives, Open University Press. See pp. 13-15; 153 & 157; and ch. 4. On teaching as craft.
- Croce, P.J. (1995), Science and Religion in the era of William James: Eclipse of Certainty 1820-1880. University of North Carolina. A study of the beginning of the erosion of certainty on science. See: the Introduction; pp. 54-59; ch. 4 on Darwin's method of enquiry; ch. 7, Peirce and the elusive uncertainty of science, & pp. [207-14]
- Day, C., (1995), Qualitative Research, Professional Development and the Role of Teacher Educators, in *British Educational Research Journal*, **21/3**. On Action Research.
- Denzin, N K & Lincoln Y S, (eds)(2000, 2nd edn.), Handbook of Qualitative Research, SAGE. A well-selling textbook in the USA. However, the authors of the articles are generally quite unreflective and uncritical of their claims, and articles are generally polemical, and do not identify or discuss underlying issues and problems in educational research.
- Dewey, J. (1910, 1933), How we Think, Heath & Co. See pp. [145-56]. (References are from the 1910 edition [2012 Martino Publishing reprint], and which is 20% shorter than the re-written 1933 edition)
- Dewey, J. (1916), Essays in Experimental Logic, University of Chicago Press / EMERO reprint. Esp. see: the Introduction sections I, II & III; also see chs. II & ch. VI. For an early statement of his theory of enquiry.
- Dewey, J (1920, 1948), Reconstruction in Philosophy, The Beacon Press, see: ch.1 [esp. pp. 3 & 6]; & also pp. 142-47. Also available in a cheap General Books LLC Memphis USA reprinted edition, but with quite different pagination.
- Dewey, J. (1929, 1984), The Quest for Certainty, ed Jo Ann Boydston, Southern Illinois University Press, **chs 1, 8** & pp. **80-86**; 136-45 & 218-22;
- Dewey, J., (1939, 1986), Logic: The Theory of Enquiry, pp. 101-111; 143; 160; 164; 170; 232-41 Unwin. This is Dewey's full statement on methods of enquiry, and develops ideas in his (1910/1933 & his 1916). Now available in an edition by Jo Ann Boydston, Southern Illinois University Press. (Volume 12 of Dewey's Later Works). Go to '*USA Amazon Books*' for second-hand copies of this. Page references in the text are from the 1986 edition (pagination of this edition differs from the 1939 edition)
- Dornyei, Z (2007), Research Methods in Applied Linguistics. OUP. As with R.Ellis (2008) and Denzin (2000), this book appears to be thorough, but underneath the technical and reductionist presentation there is little apparent awareness of deeper methodological issues, pitfalls and problems in carrying out and evaluating educational research.

- Drever, E & Cope, P. (1999), Students' use of Theory in an Initial Teacher Education Programme, *Journal of Education for Teachers*, **25/2**. A study of reflection as a route to an understanding of teaching.
- Elliot, J (2007), Assessing the Quality of Action Research, *Research Papers in Education*, **22/2**
- Elliot, J. & Sarland, C., (1995), A study of 'teachers as researchers' in the context of award-bearing courses and research degrees, *British Educational Research Journal*, **21/3**
- Ellis, Rod (2008, 2nd. ed), The study of second language acquisition. Oxford, 1142 pages. In this long and frequently-cited book, which summarises research findings (sic), I could not find any discussion of methodological issues in researching the classroom, and there are few links to classroom implications. Quite unaware of underlying methodological issues, traditions, debates and problems within classroom research.
- Ellis, R., (2012), Language Teaching Research and Language Pedagogy, Wiley Blackwell. See pp. 33-49 for a description, but not discussion, of some research models, & ch. 11.
- Eraut, M (1985), Knowledge Creation and Knowledge use in professional contexts, *Studies in Higher Education* **10/2**
- Eraut, M (1992), Developing the knowledge base: A process perspective on professional education . In Barnett, R (ed)(1992) Learning to Effect, SRHH & Open University Press
- Eraut, M (1994), Developing Professional Knowledge and Competence, see pages viii-ix; 14-17; 25-39 & 42-49. Falmer Press
- Flick, U (1998, 2009 4th ed.), An Introduction to Qualitative Research, ch.32 'Triangulation'
- Freeman, Donald, (1998), Doing Teacher Research: from inquiry to understanding, Newbury House. See chs. 1,2 4 & 8. Useful, and takes account of some literature in mainstream education on teacher research
- Gass, Susan, (1988), Integrating Research Areas: A framework for second language studies, *Applied Linguistics*, **9/2** Very interesting on some issues on the processes of language learning, but nothing on the pedagogical implications of these issues.
- Gass S.M & Selinker L. (2008. 3rd edn.), Second Language Acquisition, Routledge, pp. 54-57.
- Greene, Marjory (1965), Approaches to a philosophical biology, Basic Books, only chs. 1 & 3. On issues in researching the living world: she worked with Polanyi.
- Griffiths, M. (1997), Why teachers and philosophers need each other: Philosophy and educational research, *Cambridge Journal of Education*, **27/2**
- Hagger, H, & McIntyre D., (2006), Learning Teaching from Teachers: Realising the Potential of School-based Teacher Education, Open University Press, pp 26-27 & 34-39. On initial teacher education in a school setting.
- Hahn, Lewis E, Dewey's Philosophy and Philosophical Method, esp. pp. 31-36, in Boydston (ed)(1970)
- Hammersley, Martyn, (ed)(1986), Controversies in Classroom Research, Open University Part One
- Hammersley, M. (ed)(1986), Case Studies in Classroom Research, Open University
- Hammersley M (1989), The Dilemma of Qualitative Method: Herbert Blumer and the Chicago Tradition, Routledge. See pp. 18-32; 45-55; **113-21**; 182-93 & 214-15.

- Hammersley, M, (1990), Classroom Ethnography, ch. 6 & esp. ch.7, Open University Press.
Key
- Hammersley, M., (1992), What's wrong with ethnography?, Continuum. See pp. 46-49; 57-79; chs. 8 & 9.
- Hammersley, M., (ed.)(1993a), Educational Research: Current Issues, papers 4 (on 'objectivity' in research, by Eisner), and paper 14 by Hammersley, (key) On the teacher as researcher, (which is a critique of Carr & Kemmis [1986]). Open University.
- Hammersley M (1993b) in Hammersley (ed)(1993a), On the teacher as researcher, reprinted from Educational Action Research, 1/3. **Key**.
- Hammersley M (1997), Educational Research and Teaching, British Educational Research Journal, 23/2
- Hammerlsey, M. with Roger Gomm, Bias in Social Research, in Hammersley ed. (2000), Taking Sides in Action Research, Routledge Also see pp. 1-15 & 124-149.
- Hammersley, M (2004), Action Research: a Contradiction in Terms?, Oxford Review of Education, 30/2
- Hammersley, M (2008), On the failings of Qualitative Inquiry, in his Questioning Qualitative Inquiry: Critical Essays, SAGE
- Hammersly, M (2013), The myth of research-based policy, SAGE, pp 15-23; 41-43.
- Hedges, H (2010), Blurring the Boundaries: connecting research, practice and professional learning, Cambridge Journal of Education, 40/3, esp. pp. 299-302
- Howe, K & Eisenhart, M (1990), Standards for qualitative (and quantitative) research: a prolegomenon, Educational Researcher **May 1990** Five standards for evaluating educational research are proposed.
- Hoyle E & John PD (1995), Professional Knowledge and Professional Practice, for ch. 3: The issue of professional knowledge, Cassell
- Hughes, JA (1976), Sociological Analysis: Methods of Discovery, Nelson. Ch. 2 Concepts and Theories; & 275-281 for a critique of 'triangulation'
- Husu, J., (2002), Navigating through pedagogical practice, esp. pp 58-61 & 68-70; ch. 4 of Sugrue & Day, C. (ed)(2002).
- Jaeger, RM (ed)(1988), Complementary Methods for Research in Education, American Educational Research Association. See especially the paper by Shulman.
- James, William (1907), Pragmatism: A new name for some old ways of thinking. Only see lecture 2. Amazon reprint.
- Jarvis, Peter (2002), Teaching Methods and Teaching Styles, ch. 3 of Jarvis P (ed), The Theory and Practice of Teaching, Routledge, p 32
- Jaspers, Karl (1986,1994), ed, & tr Ehrlich, E et al, Basic Philosophical Writings, Humanities Press, New Jersey, pp. 4-7; 16-18; 354-357; 361 & 482-487. On the limitations of scientific method.
- Kemmis S & McTaggart R, Participatory Action Research, in Denzin & Lincoln. Action Research focused on the teacher.
- Kitchener, R.F. (1986), Piaget's Theory of Knowledge: Genetic epistemology and Scientific Reason, Yale. See ch. 4 on constructivism; and pp. 133-143 on issues in investigation.
- Kvale, Steinar (ed)(1989), Issues of Validity in Qualitative Research, Studentlitteratur. pp 73-91 offer an in-depth discussion of philosophical issues related to validation of knowledge claims, including a discussion of whether validation itself can be justified.

- Lantoff, JP , Conceptual knowledge and instructed language learning in Fotos S & Nassaji (eds)(2007), Studies in Honour of Rod Ellis, CUP. Tries to understand the learner's creation of concepts.
- Lawson, Bryan (1980), How Designers Think, Butterworth Architecture. Introduction, chs. 2, 3 & 9. On issues in design, and so relevant for designing research. See esp. pp. 76, 88 & 137ff on taking into account constraints in the design process.
- Leinhardt & Greeno (1986), The cognitive skill of teaching, *Journal of Cognitive Psychology*, **78/2**, esp. pp 75/76. This paper probes the teacher's thinking in a mathematics lesson.
- Lier, Leo van, (1988), The classroom and the language learner. Longman. See pp. 36-43 & 68-69 on issues in classroom research.
- Lortie, D.C., (1975). Schoolteacher: a sociological study, esp. pp. 76-79 & ch. 7. This often-cited book is based on a large study of state-sector teachers in the USA. Lortie investigates and discusses the administrative and practical constraints and pressures affecting their work. University of Chicago Press.
- Magee, B (1973), Karl Popper, OUP/Viking Press. See chs. (ii); (iii) & (v). A more accessible presentation of Popper's thought on methods of enquiry than his own writings.
- May, T., (1993), Social Research: Issues, Methods and Process. Overview of issues in doing social research. Complex.
- Maclean A L (2015), How can a Teacher grow her Knowledge?, *Radical TEFL*, **2**. Download at <http://radicaltefl.weebly.com>
- Maclean A.L (2016), What is Teaching Speaking?, *Radical TEFL*, **3**. Download at <http://radicaltefl.weebly.com>
- McIntyre, Donald, Designing a Teacher Education Curriculum from research and theory on teacher knowledge, in Calderhead, J., (ed)(1988), esp. pp 106-109
- McIntyre, D., Theory, Theorising and Reflection in Initial Teacher Education, in Calderhead & Gates (ed)(1993) . On the importance of theory, and of the value of reflection and of learning from reflection for initial teachers. Page 41.
- McIntyre, D, (2005), Bridging the Gap between Theory and Practice, *Cambridge Journal of Education*, **35/3**. See up to p. 365.
- Medawar, P B., (1987), Hypothesis and Imagination , in The Art of the Soluble, Methuen
- Meijer, P.C., (2010, 3rd edn., Vol 7), Experienced Teachers' Craft Knowledge, in International Encyclopedia of Education, Elsevier, ed. Peterson P.L. et al,
- Murphy, John P., (1990), Pragmatism: from Peirce to Davidson, Westview Press. Ch. 6.
- Nagel, E, (1960, 1978) Philosophy in Educational Research, in Hartnett & Naish (1978), Heinemann, Volume 2. Explores how education can draw from research traditions, and what can go wrong. [Also see the discussion of Nagel in *ibid.*, pp. `158-67].
- Neufeld, J. & Kompf, M., (2002), Educational Research and Teacher Development, which is ch. 3 of Sugrue, C. & Day, Christopher, (2002)(eds.), esp. see pp. 50-55 on Nietzsche.
- Nias, J & Groundwater-Smith S (eds)(1988), The Enquiring Teacher: Supporting and Sustaining Teacher Research . The Falmer Press. Introduction by Nias. & also p. 254
- Nunan, D (1991), Methods in Second Language Classroom-orientated research: A Critical Review, *Studies in Second Language Acquisition (SSLA)*, **13/2**
- Nunan D. (1992) Research Methods in Language Learning (62-63 & 80-81), CUP.
- Nuttall, Graham (2004), Relating classroom teaching to student learning: a critical analysis of why research has failed to bridge the theory-practice gap, *Harvard Educational Review*, **74/3**. (See especially pp. 273; 291-292; 295 & the final sentence)

- Nuthall, G (2005), The cultural myths and realities of classroom teaching and learning: a personal journey, *Teachers College Record*, **107/5**
- Philips, Derek L, (1973), Abandoning Method: Sociological Studies in Methodology, Josey-Bass. See pp. xii; 5-10; 13; 16; 57; 60-61; 66; 70; 72-79; 82-97; 100-01; 114-21; 124-25; 129-35; 138-40; 142-43; 149-50; 154-56; 165-69; 175 & 178. Although a rather old text, valuable for identifying and discussing many sources of bias in social research.
- Philips, DC, (1987), Philosophy, Science and Social Enquiry, Pergamon. Philips is an important American philosopher of education.
- Philips, DC, (2005), The Contested Nature of Educational Research. *Journal of Philosophy of Education*, **39/4**. On the need for more examples of research in order to develop understanding of issues in educational research.
- Polanyi, M. (1957), Personal Knowledge: Towards a Post-Critical Philosophy University of Chicago Press / RKP , esp. chs. 1, 4 & 6.
- Polanyi, M, (1964). The Logic of Tacit Inference, in Grene M (ed) (1969)
- Polanyi, M, (1969) Knowing and Being, in Grene M (ed), Knowing and Being, (1969) RKP
- Polya, G, (1945, 1957 2nd. ed), How to solve it, for the Introduction by Ian Stewart
- Popper, K. (1972, 4th. ed.), Conjectures and Refutations: The Growth of Scientific Knowledge, pages 4, 15-17; 24-30; 66-71; 128-29; 215-16 & 222. See also Back to the Pre-socratics. Difficult, as key ideas are mixed with discussion of philosophy. A clearer presentation of Popper's influential thinking is given by Magee (1973)
- Popper, K (1973), Sources of Knowledge and Ignorance , in (1972)
- Porte, G K, (2002), Approaching Research in Second Language Teaching: a Practical Approach to Critical Analysis of Qualitative Research, CUP. Esp. ch. 4
- Prawat, Richard S., (1997), Problematizing Dewey's Views of Problem Solving, *Educational Researcher*, **26/2**. This journal, *Educational Researcher*, is published several times a year in the USA, (and should not be confused with the British, NFER journal *Educational Research*.) There has been some excellent debate in it on issues in educational research, especially in the 1980s and 1990s, often in short articles.
- Pring, R. (2000, 2004, second ed.), Philosophy of Educational Research, Continuum. Chs. 1, 2 3 & 5. **Basic text on issues in critically approaching educational research.**
- Pring, R. (2004), Philosophy of Education: Aims, Theory, Common Sense and Research , chs 11, 12 & 13, Continuum. **Key.**
- Pring, R (2007), John Dewey: A Philosopher of Education for our time?, Continuum. See especially pp. Xii; 1-7; 10-19; 48-49; ch. 3 (on experience and enquiry); **ch. 5**; pp. **140-158** (on pragmatism and on Dewey's philosophical position; and pp. 162-63.
- Randall, John H. Jr., (1976), The making of the modern mind: a survey of the intellectual background of the present age, Columbia University Press. See esp: pp 266-71; 419-23; 490-94; 497-509, & chs. IX, X & XI. Or see Tarnas (1996). [Randall was an American philosopher and historian of ideas].
- Richards, Keith (2003), Qualitative inquiry in TESOL, esp. pp. 6-9 & 18-33.
- Richards, Keith (2009), Trends in qualitative research in language teaching since 2000. *Language Teaching*, **42/2**. See pp. 148-50 & 163-68.
- Rowbottom DP & Aiston SJ, The Myth of 'Scientific Method' in Contemporary Educational Research, in Bridges & Smith (eds)

- Scarth & Hammersley, M, Some problems in assessing the closedness of classroom tasks, in Hammersley ed (1986), Case Studies in Classroom Research, Open University. **Key** [Also see Scriven {1988} below]
- Scheffler, I, (1974), Four Pragmatists: A Critical Introduction to Peirce, James ... and Dewey, RKP, pages **58-75** for Peirce on method. See the Introduction for a clear statement which both places the pragmatists in context, and which explains their programme.
- Schlipp, P.A. (1951)(ed), The philosophy of John Dewey: The library of living philosophers, Tudor Publishing, New York. Esp. for the paper by Randall.
- Scott, David (2000), Realism and Educational Research: New Perspectives and Possibilities, Routledge- Falmer. Pp 1-7; 11-25; 36-60; 145-49. See esp. p. 2. for a summary of some fallacies in research
- Scott, D. (2003), Critical Realism and Empirical Research methods in Education, *Journal of Philosophy of Education*, 39/4. On problems of claiming 'outsider perspective'.
- Scriven M (1988), Philosophical Inquiry Methods in Education, in Jaeger, PM (ed), Complementary Methods for Research in Education, pub. American Educational Research Association, pp 131-51. On the need to analyse concepts used in research. [Also see Scarth & Hammersley, above]
- Seliger, H.W. (1983), The Language Learner as Linguist: Of Metaphors and Realities, *Applied Linguistics*, 4/3
- Seliger, H W & Shohamy, E, Second Language Research Methods (1989), Oxford University Press. See pp. 56-61 on the need for conceptualisation; and pp. 43 & 49.
- Shulman L. (1988), Disciplines of Inquiry: An Overview, in Jaeger (1988)
- Sidorsky (1977)(ed), John Dewey: The Essential Writings
- Skehan, P., (1998), A cognitive approach to language learning, OUP, esp. pp. 1-3; 60-62 & ch. 11, which is : Learners, learning and pedagogy
- Smith, John E., (1963), The spirit of American Philosophy, OUP. An introduction to the early pragmatic philosophers, see esp. pp 8-18 on Peirce and pp 117-130 on Dewey.
- Smyth, J. (1982), A teacher-development approach to bridging the research-practice gap, *Journal of Curriculum Studies*, 14/4
- Stenhouse, L (1975), An Introduction to Curriculum Research, Heinemann. Ch 10 for a summary of his argument.
- Suissa, J, (2006), Shovelling Smoke? The Experience of being a Philosopher on an Educational Research Training Programme, *Journal of Philosophy of Education*, 40/4
- Sugrue, C. & Day, Christopher, (2002)(eds.), Developing Teachers and Teaching Practice, Routledge. See papers 3, 4, 6 & 13. **Key**.
- Taleb, N. N. (2007), The Black Swan, Penguin. Especially see: Prologue, chs, 1, 5, 9 & 11. Also see chs. 3,4 6 & 10. On bias, and other pitfalls in enquiry. Excellent.
- Talisse, Rb & Aikin, SF (2008), Pragmatics: A Guide for the Perplexed. Continuum. Chs, 1,2 & 3, esp. **120-21**.
- Tarnas, Richard (1996), The Passion of the Western Mind. Pimlico. On the history of thought, and on the connection between philosophy and methods of enquiry. Excellent. Esp. pp. 200ff., and the chapters on Aristotle and Kant. Or see Randall (1976)
- Thayer, H.S., (1968), Meaning and Action: A critical history of pragmatism, Bobbs-Merrill, see especially the following sections for a background to pragmatism: #9; #11 on Kant; #15; & #20 on Peirce's theory of enquiry, also ch. 3 on John Dewey. A major study.

- Thomas, G (1997), What's the use of Theory?, *Harvard Educational Review* **67/1**. See especially pp. 80-81; 84-88 & 96-101.
- Thorns, D.C., (1976a), The growth of sociological method, in Thorns (1976b). Although old, chapter 1 gives a short, clear exposition of the background in philosophy to sociological research.
- Thornas, D.C (1976b)(ed), New Directions in Sociology, David & Charles, chs. 1 & 8.
- Toulmin, S (1990), Cosmopolis: the Hidden Agenda of Modernity, Chicago. On lost traditions in methods of enquiry, see esp. pp **29-36**; 70-83 & 168-193. Or see Barrett (1987).
- Vanderlinde, R & van Braak, J., (2010), The Gap Between Educational Research and Practice, *British Educational Research Journal*, **36/2**
- Verma, GK & Read, RM (1981), What is Educational Research? Perspectives on Techniques of Research. Gower. Chs 1 & 2; pp. 68/69; 76-84. Old, and so pre-post-modern. Presents and discusses core issues very clearly. Non-technical
- Wallace, M. (1990), Training Foreign Language Teachers: A Reflective Approach, CUP, pp. 8-17 & 52-55
- Wilson, Suzane M; Shulman LS & Richert AE, '150 Different Ways of Knowing: Representations of Knowledge in Teaching, in Calderhead (1987)(ed). Pp 107-109
- Woods, Peter, The Art and Science of Teaching, which is ch. 1 of Woods, P., (ed)(1996), Researching the art of teaching: ethnography for educational use.

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Re-invention in ELT Pedagogy: the ‘Goldilocks’ Principle

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ABSTRACT

ELT professional discourse has increasingly come to favour a ‘communicating to learn’(CTL) approach to pedagogy, consisting of an amalgam of elements such as ‘focus on form’, ‘learner autonomy’, ‘naturalistic’ use of language, and so on. Methods derived from this approach include, e. g. , ‘Dogmé ELT’, ‘task-based learning’, and ‘CLIL’. However, unfortunately, as numerous reports indicate, the use of wholesale forms of CTL-based pedagogy are impracticable in the majority of ELT situations. This is because ELT occurs mostly at the basic education level in ‘TESEP’-oriented institutions located in an ‘EFL’ setting, a type of context which differs in a number of important respects from that assumed by the CTL construct.

However, rather than therefore ‘throwing out the baby with the bathwater’, this article proposes that a ‘re-invention’ innovation strategy should be used, whereby more compatible, ‘blended’ forms of pedagogy are developed, combining together elements of existing ‘grass-roots’ practice with those that make up the CTL model. How this might be achieved is illustrated with reference to representative examples of the issue, viz. , task-based learning, the promotion of learner autonomy, and the use of ‘naturalistic’ classroom communication.

Keywords: *ELT pedagogy, re-invention, task-based learning, autonomy, classroom interaction*

Introduction

In recent years something of a consensus has arisen within influential parts of the ELT professional discourse concerning the optimal form that ELT pedagogy should take (see, e. g. , Scheffler 2012). In a nutshell, as Waters (2012: 443) explains, this methodological ‘model’ can be characterised as a revisiting of the ‘naturalistic’, language use-based ‘learning-by-doing’ approach previously associated with the ‘strong’ form of Communicative Language Teaching (Howatt 1984: 279) – what might be referred to as a ‘communicating to learn’ (CTL) approach. Among its main features are a focus on:

“maximizing opportunities for learners to interact as autonomously as possible with ‘authentic’ communication data in order to produce personally meaningful utterances... allied with a proportionally much smaller component involving a ‘focus on form’ (i. e. an ‘emergent’, ‘just in time’) and/or ‘awareness-raising’ treatment of grammar and so on” (Waters: op. cit.).

Teaching methods that can be associated with a CTL approach include, e. g. , ‘Dogmé ELT’ (Meddings & Thornbury 2009), ‘Content and Language Integrated Learning’ (Dalton-Puffer 2007), ‘text-based’ materials design (Tomlinson 2010), and, in particular, ‘Task-based Learning’ (Willis & Willis 2007).

ELT practitioners are nowadays under increasing pressure to adopt at least some if not all of the elements of CTL pedagogy (see, e. g. , Littlewood 2004; Prodromou & Mishan 2008; Scheffler *ibid.* ; Waters 2015). However, it is argued in what follows that, in fact, for this ‘model’ to be of widespread relevance, it is essential for its features *to undergo suitable forms of adaptation* or, in other words, what (Rogers 2003: 180-188) refers to as ‘re-invention’. Rogers defines ‘re-invention’ as occurring when an innovation is ‘changed or modified by a user in the process of its adoption and implementation’ (*ibid.* : 180).

As he also explains, there is evidence that *‘a higher degree of re-invention leads to a faster rate of adoption ...[and] a higher degree of sustainability of an innovation’* (183). The need for re-invention arises because of a number of incompatibilities between the teaching ideas associated with CTL, on the one hand, and, on the other, the conditions prevailing in the overwhelming majority of ELT situations.

In the remainder of this paper the attempt is therefore made to show how forms of ‘re-invention’ appropriate to the world of ELT at large can be achieved with reference to a number of the main aspects of the CTL approach.

1. Realities of ELT around the world

Firstly, however, in order to provide a frame of reference for what follows, it is necessary to clarify what is meant by what has just been referred to as ‘the overwhelming majority of ELT situations’. There is, of course, an obvious sense in which each ELT setting is unique. But, equally, it is also possible to identify a number of overall characteristics which most of the world’s ELT settings, to a greater or lesser extent, can be seen to share.

1.1 The British Council (Smith & Knagg 2012) estimates that, of the more than a billion English language learners around the world, approximately 85% are studying at the ‘basic’ education level (i. e. , in primary and secondary schools). Given the educational level at which the teaching of is taking place, it can also be assumed that the language level of most of the learners is likely to range from ‘beginner’ to ‘intermediate’ (‘A1’ to ‘B1/B2’, in CEF terms). Furthermore, it seems safe to also assume that most such schooling will occur in locations where English is not the native language of the majority of the population.

1.2 In addition, the chief characteristics of the kind of institutional setting in which such learners learn will tend to be ‘TESEP’ in nature (Holliday 1994a & b), i. e. , conforming to those typical of state-sector education system provision. As a result, it can be expected that, *inter alia*, class sizes will be relatively large; learners are likely to share a lingua franca other than English; the teaching of English will tend to take its lead from the approach employed for other school subjects, rather than professional trends within ELT; reasons for learning will be largely ‘institutional’ vs. ‘instrumental’, i. e. , in order to equip learners with a foundation of the kind of knowledge seen as necessary for educating young persons, rather than for immediate, practical application (however much ‘lip service’ may be paid to the latter in curriculum documents); the professional ‘culture’ of teachers will be primarily

‘collectionist’ (e. g. , content-based) and to much lesser extent ‘integrationist’ (e. g. , process-oriented); and so on (Holliday *ibid.*).

1.3 Teaching will tend to be organised on a ‘drip-feed’ basis, i. e. , occurring for a few hours a week over a number of terms or semesters spanning several years, punctuated by regular and sometimes relatively lengthy holiday periods, rather than on a more intensive basis.

1.4 Furthermore, following Clark 1987 (cf. Cortazzi & Jin 1996; LoCastro 1996), the dominant educational value system influencing teaching and learning in such institutions will lean towards the ‘classical humanist’ and/or ‘reconstructionist’ paradigms (i. e. , focusing on intellectual understanding of a set body of knowledge and/or skills-based, objectives-oriented ‘training’), rather than the ‘progressivist’ school of thought (characterised by a focus on ‘process’, whole person development, learning how to learn/by doing, and so on).

1.5 It is also important to note that, partly as a corollary, the learners in question will be subject to a series of regular, summative progress tests of an increasingly ‘high-stakes’ nature, most of which, for logistical and other reasons, are likely to focus primarily on language system knowledge (grammar, lexis, and so on).

It is such a macro-level conceptualisation of the way the majority of the ELT world is configured which informs the analysis that follows. In other words, *how well-suited to the needs of such learners and the overall characteristics of the situations in which they learn, are the kinds of ‘communicating to learn’-based pedagogical proposals outlined earlier?* In Section 2 below I consider and discuss Task-based learning; in section 3 I discuss Learner Autonomy and motivation; and in Section 4 I discuss Classroom Interaction

2. Task-based learning

2.1 As already noted, one major practical application of the pedagogical model in question has taken the form of ‘task-based learning’ (TBL) (here regarded as being an approach to language teaching in which learners solve communication problems in order to learn English – see, e. g. , Ellis 2003). However:

(a) firstly, the inductive, process-oriented pedagogical ‘style’ of TBL is likely to be perceived as incompatible with the more ‘expository’, content-focused teaching approach that, as has been pointed out in the previous section, prevails in the majority of English language learning situations. As Ellis (2009: 242) acknowledges:

“Educational systems in many parts of the world place the emphasis on knowledge-learning rather than skill development, and a task-based approach to language teaching is not readily compatible with such a philosophy. A structural approach based on teaching discrete items of language accords more closely with such an educational philosophy”

(b) secondly, the psycho-biological development of most learners beyond the early stages of primary school tends to result in an increased capacity and preference for a relatively explicit, conscious, ‘didactic’ approach to learning and teaching (DeKeyser 2003). However, as a learning-by-doing-based approach, TBL relies on

an underlying method of learning much more similar to the largely implicit, informal and ‘incidental’ processes associated with L1 acquisition in early childhood. It can therefore be regarded as potentially inappropriate to the needs of the audience in question in this way as well, i. e. , in terms of the kind of overall teaching-learning methodology involved.

(c) Also, in Carless 2002 & 2007 - two in a series of his studies of attempts to implement TBL in the Hong Kong basic education system (and still among the very few examples of research of this kind) - a number of important pedagogical problems are reported. For example:

- at the primary school level, there were frequent concerns about the levels of noise and indiscipline involved, the extent of use of the mother tongue, variations in levels of learner involvement, and ‘drawing and colouring’, i. e. , the amount of task-work not directly related to L2 language development (Carless 2002).
- at the secondary level, in addition to most of the problems already mentioned, there were also concerns about the process-oriented nature of the work making it harder for learners to develop a sense of achievement, the lack of ‘grammatical input’, incompatibility with examinations, and over-emphasis on oral work (Carless 2007).
- Furthermore, in his comprehensive survey of research into TBL, Swan 2005 concludes that:
- “The claim that TBI [i. e. , TBL] is a superior teaching approach, solidly based on the findings of current theory and research, cannot be sustained... The naturalistic communication-driven pedagogy characteristic of TBI has serious limitations, especially as regards the systematic teaching of new linguistic material. Its exclusive use is particularly unsuitable for exposure-poor contexts where time is limited...” (396-7: my interpolation).

2.2 Discussion As already indicated, given that the level of knowledge of most of the world’s English language learners is such that their acquisition of ‘new linguistic material’ is likely to be a major learning priority, and their learning situation usually one which is ‘exposure-poor ... [and] where time is limited’, it is hard to see how there can be disagreement with the view that the ‘exclusive’ use of TBL, at any rate, as Swan goes on to say, is inappropriate ‘for most of the world’s language learners’ (ibid.).

However, at the same time, despite these limitations, it is also important to consider the potential for re-invention of TBL in the kind of English language learning situation in question. As one of the teachers in Carless 2007 puts it, “We need to find some other method, not a task-based one and not a traditional one, something between the two” (600). A case can be made for the inclusion of a TBL-based element in pedagogy in such a setting as a *complement to* (rather than a replacement of) the relatively ‘expository’ approach that tends to prevail within it. Classroom-based research shows that learning how to make practical, ‘communicative’ use of a foreign language works best when both an ‘explicit’ knowledge of language elements is involved *and* also the ability to draw on them holistically on an ‘on-line’ basis

(Lightbown & Spada 2006: 179-180). There is therefore a prime facie pedagogical case for attempting to focus on and integrate both of these aspects of language learning.

One ‘framework’ for this purpose which has been extensively applied to the design of learning units in a range of popular ELT coursebooks (e. g. , Hutchinson 2009) is the ‘Materials Design Model’ to be found in Hutchinson & Waters 1987: Ch. 10 (cf. Estaire & Zanon 1994; Ellis 2003: 28-30). Here, the main information content and linguistic forms in an initial ‘input’ text are first of all focused on in a series of exercises. These elements are then put into practice in a holistic way by work involving a closely-linked communicative problem-solving task, resulting in the production by the learners of a ‘text’ of their own parallel to the kind in the ‘input’. In this way an integrated underlying pedagogical structure is created, one which is both ‘focus on formS’ and meaning-oriented, and which also encapsulates both ‘expository’ and more ‘implicit’ forms of language learning, via the linked ‘exercises’ and ‘task’ elements, respectively.

It should be noted that, although such a framework resembles what is sometimes referred to as ‘task-supported learning’ (Ellis 2003: 28-30), it is more accurately characterised as a ‘task-enhanced’ approach (Tom Hutchinson, personal communication), since the former term implies that it is the task which is the primary element, whereas in fact, in the model just described, it is only one of several, equally or more important elements. In this way the potential for compatibility between the re-invention and the dominant type of ELT situation is maximised, since, as innovation theory indicates (see, e. g. , Waters 2009), ‘tradition guides the transition’ (Mensch 1979), i. e. , only incremental change is likely to be successful.

3. Learner autonomy

A second main strand of thinking in the ‘CTL’ pedagogical model outlined earlier is the view that learners will learn best when they are able to do so as autonomously as possible (see, e. g. , Benson & Voller 1997), and therefore that one of the primary roles of the teacher is to facilitate ‘learning how to learn’ on the part of learners, in order to maximise their ability to learn independently.

Of course, in the final analysis, it is the learner who must do the learning, both in the classroom and beyond it, and pedagogy must therefore be centrally concerned with attempting to effect such an outcome. However, in attempting to do so, the psychology of the learners and the realities of the learning context obviously also have to be taken into account.

3.1 Motivation Firstly, the typical motivation of the kind of learners under focus here (i. e. , those referred to in the ‘Mapping the Landscape’ section above) is important to identify. Learners with a strong motivation to learn English are likely to be more willing to learn independently than those whose motivation is lower (Spratt, Humphreys, & Chan 2002). Levels of motivation will obviously vary among any population of learners.

However, since the kind of learners in question *have to* study English (i. e. , as a school requirement), rather than because they necessarily want to, and because they are at an age where most are unlikely to have an immediate practical use for the language outside the classroom, it seems safe to assume that their motivation will be primarily ‘extrinsic’ rather than ‘intrinsic’ (cf. Sakui & Cowie 2012). It follows that their motivation to learn is likely to rely on an external rather than internal ‘locus of control’, making it relatively more difficult to foster in them a desire to learn independently (cf. Csizér & Kormos 2009).

But even where the motivation to learn is more positive, it does not follow that it will readily become self-sustaining. As Ryan and Deci 2000 say:

“despite the fact that humans are liberally endowed with intrinsic motivational tendencies, the evidence is now clear that *the maintenance and enhancement of this inherent propensity requires supportive conditions, as it can be fairly readily disrupted by various nonsupportive conditions*” (70, my emphasis).

As they go on to also argue, after infancy, intrinsic motivation is not typical of most human behaviour:

“Although intrinsic motivation is an important type of motivation. ... much of what people do is not, strictly speaking, intrinsically motivated, especially after early childhood when the freedom to be intrinsically motivated is increasingly curtailed by social pressures to do activities that are not interesting and to assume a variety of new responsibilities...” (71).

In addition, Ryan and Deci also criticise the intrinsic vs. extrinsic distinction that typifies much of literature on motivation as too simplistic, because it assumes i) that intrinsic motivation is inevitably superior, ii) that the distinction between the two concepts is clear-cut, and iii) that extrinsic motivation is monolithic in nature (ibid: 72-74).

Instead, they therefore propose that extrinsic motivation is best seen as comprising a gradation of types, varying in the degree of autonomy involved, and ranging from ‘External regulation’ (akin to the stereotypical view of extrinsic motivation, whereby behaviour is based primarily on external rewards, punishments, and so on), on the one hand, to ‘Integrated regulation’ on the other. As they explain:

“students who do their homework because they personally grasp its value for their chosen career are extrinsically motivated, as are those who do the work only because they are adhering to their parents’ control. Both examples involve instrumentalities rather than enjoyment of the work itself, yet the former case of extrinsic motivation entails personal endorsement and a feeling of choice, whereas the latter involves compliance with an external regulation” (ibid: 71).

and (ibid: 73).

“Integration occurs when identified regulations are fully assimilated to the self, which means they have been evaluated and brought into congruence with one’s other values and needs. Actions characterized by integrated motivation share many qualities with intrinsic

motivation, although they are still considered extrinsic because they are done to attain separable outcomes rather than for their inherent enjoyment”

Such a conceptualisation of motivation seems in close keeping with the realities of post-infancy, basic education-level learning. It implies that i) very few learners are likely to ever be purely intrinsically motivated, i. e. , out of their interest in the English language alone; ii) rather than doing so autonomously, most will therefore need their motivation for learning to be sustained by some form of ‘external regulation’ congruent with their perceptions of their needs; and iii) a motivational ‘regime’ of this kind can nevertheless be seen as resembling, in certain important respects, the characteristics of more fully autonomous, intrinsically-motivated behaviour.

From this perspective, the main pedagogical issue becomes one not of how learners might be helped to become fully autonomous in their learning, but rather, how teaching and learning might move as far as possible towards the ‘integrated regulation’ part of the extrinsic motivation spectrum – in other words, how the prevailing pedagogical apparatus of textbooks, tests, teaching and so on might be used so as to help to build up a sense of ‘congruence’ with learners’ own perceptions of their learning needs (cf. Littlewood 1999; Dörnyei 2001: 18-23).

3.2 Constraints on teachers

A related line of argumentation can be derived from consideration of a number of the other salient characteristics of the prototypical English language learning situation. For example, in my (1998) a range of day-to-day ‘external pressures’ at play in the ‘majority’ EFL teaching context are identified, all of which significantly counteract teachers’ ability to foster learner autonomy, such as the following:

1. shortage of time: getting learners to do more of the work for themselves takes too long;
2. examination pressures: results often appear to be better when the approach is more teacher-centred;
3. materials constraints: the methodology of the textbook forces the teacher to adopt a teacher-centred approach;
4. the head of department/headmaster/inspector threat: the ‘powers-that-be’ will not tolerate a more learner-centred style;
5. cultural expectations: the socio-cultural norm is for teachers to transmit knowledge and learners to passively absorb it;
6. learner resistance: learners, for all sorts of reasons, may be reluctant to take responsibility for managing their own learning.

I have also suggested several ‘internal drives’ (i. e. , teacher-specific factors) that can also have a similar effect, such as:

- lack of training in how to manage classroom learning in a ‘delegated’ manner (cf. Griffiths 2012);
- wanting to ‘micro-manage’ student learning, in order to reduce the risk of mistakes, unpredictable turns of events, and so on;
- a desire to make oneself useful to or ‘needed’ by learners by providing them with more support than is optimal;

- being an enthusiastic learner/user of English oneself and therefore not appreciating sufficiently the level of motivation and willingness to engage in learning English of most learners (Waters 1998: 14-15).

In short, because of the importance of such factors, the fostering of learner autonomy in the prototypical English language learning situation will nearly always be fraught with difficulty. This is not to say that it cannot be undertaken, but, rather, that it will only be possible to the extent that due account is taken of situational variables of the kind just mentioned. As Illés (2012: 508) puts it:

“Education cannot function without teacher control. How teachers exercise this control and how much they deem appropriate to relinquish should be their decision, based on the knowledge of their teaching context and their students in particular. Any model of learner autonomy should therefore be adopted only after careful appraisal of its relevance to a specific educational setting.”

3.3 Discussion To sum up, both main parts of the picture just outlined indicate that approaches to fostering learner autonomy in the majority of English language learning situations around the world need to take into account the particular natures of i) the psychology of the prototypical learner and ii), the typical contextual realities. Both sets of factors indicate the need for a re-invented, ‘hybrid’ form of pedagogy in this area, similar in nature to the ‘blended’ approach outlined in the previous section in connection with the use of TBL. In other words, the ‘bedrock’ of accustomed practice needs to be retained, but also built on, so that its potential for fostering an appropriate degree of learner autonomy is maximised.

Examples of pedagogical ideas which match these criteria include Sturtridge 1982, Allwright 1988, Clarke 1989, Stevick 1996: Ch. 8, Littlewood 1997, Waters 1998, Spratt et al. 2002 and Illés 2012. All of them are characterised by taking the norms of pedagogical practice that prevail in the prototypical English language learning situation as a ‘given’, and then identifying the potential for building incrementally on this foundation so that an appropriate element of work aimed at fostering learner autonomy is also introduced.

For example, in Clarke (op. cit.), one of the ‘stock in trade’ features of pedagogy in the type of language learning situation in question - the grammar structure substitution table – is introduced and worked with first of all in a conventional, teacher-directed way. Following this, however, the learners go on to i) create a parallel table of their own, ii) then complete a ‘gapped’ version of a similar table, and iii) finally, construct a new, parallel table of their own and try it out on their fellow learners (cf. Stevick 1996: Ch. 8). In such ways, rather than a more idealised approach to learner autonomy (Smith 2008; cf. Littlewood 1999), a more ‘grounded’ (but also theoretically well-motivated) way of fostering it can be developed, one which –for the reasons that have been put forward - is likely to be better suited to the needs of the majority of English language learners and the realities of their learning situations. Once again, a ‘re-invention’ innovation strategy has been adopted, whereby widespread existing pedagogical has been both simultaneously retained and redeveloped.

4. Classroom interaction

4.1 As already indicated, a further main pedagogical principle of the teaching ‘model’ outlined in the Introduction (above) is that what happens in the classroom should, as far as possible, involve ‘naturalistic’ rather than ‘artificial’ forms of communication. Thus, for example, when checking learners’ comprehension, Thornbury 2004 recommends asking the question “‘Do you understand?’”, on the grounds that this

“is the most direct and honest way we check understanding in real life, so — if the same conditions of authenticity and sincerity are operating in the classroom (which I argue they should be) — then it may make a lot of sense if, when in doubt, teachers simply stop and ask, hand on heart, “Do you understand?”

However, we need to ask to what extent ‘naturalistic’ uses of language which typify communication outside the classroom can in fact also function equally effectively in pedagogic terms inside it. As, e. g. , Prabhu (1992) and Seedhouse (1996) show, the classroom constitutes a well-defined social setting in its own right, with its own accustomed purposes and roles and related routines and rituals, resulting in its own distinctive type of discourse. As Goffman (1981: 53-54) puts it (cf. Ellis 2003: 251-253; Cullen 2002; Sinclair & Coulthard 1975), the *‘social setting of talk... can penetrate into and determine the very structure of the interaction’*. As he also goes on to say:

“in classroom talk between teacher and students it can be understood that the teacher’s purpose is to uncover what each and every pupil has learned about a given matter and to correct and amplify from that base. The consequence of this educational, not conversational, imperative is that classroom interaction can come to be parcelled out into three-move interchanges:

Teacher: Query

Pupil: Answer

Teacher: Evaluative comment of answer...;

furthermore, it is understood that the teacher’s concern is to check up on and extend what pupils know, not add to her knowledge, and that it would not be proper for a pupil to try to reverse these roles. ”

In other words, in classroom settings, because of the operation of the ‘educational... imperative’:

(i) particular norms of interaction are expected; and

(ii) these norms will differ from those that obtain in non-classroom settings.

In terms of pedagogy, thus, the effects of this principle cannot be ignored.

However, rather than ‘naturalistic’, the kind of discourse which is most ‘natural’ in classroom terms is likely to be rather different from the discourse of other kinds of settings. Further, to be truly learner-centred, it is obviously important to take into account learners’ likely expectations of this kind about how classroom discourse will be structured (Ellis 2003: 251-253)⁵⁰.

⁵⁰ See O’Neill (1991) for a telling example of an actual lesson in which this principle is ignored, resulting in what he characterises as ‘learner neglect’.

4.2 Objections However,, it might be immediately objected: ,
How, in that case, can the advocacy of the importance of ‘naturalistic’ communication for language learning pedagogy be squared with the rigid, hierarchical ‘Initiation-Response-Feedback’ (IRF) type of teaching-learning sequences that classrooms, by their nature (cf. , e. g. , Sinclair & Coulthard 1975), as Goffman shows, tend towards?

In attempting an answer, it is first of all important to distinguish between ‘structure’ of the kind associated with IRF exchanges, on the one hand, and ‘control’ of the kind that inhibits learning processes, on the other.

It often appears to be assumed that the greater the degree of pedagogical ‘structure’, the stronger the amount of control, and therefore the more limited the scope for learning (see, e. g. , Nunan 1999: 75). However, of course, there is in fact no necessary correlation of this kind between the two concepts (Owen, Froman, & Moscow 1981: 388). Pedagogy that is relatively ‘structured’ can still allow for large amounts of student initiative and independence within its interstices (Stevick 1982: 7-8; O’Neill 1991; Wong-Fillmore 1985). This occurs because of the variable ways in which all three main elements in the IRF sequence can be calibrated. In some cases, the exchange may leave open very little room for learner initiative, as in, for example, a ‘mechanical’ drill. But equally, on other occasions, the same overall structure may act as a ‘frame’ for much more open-ended and creative learner responses, as in, e. g. , project-work. The overall pedagogical framework is the same, but the kinds of learning being fostered are very different.

The crucial issue is therefore one of attempting to create, within the constraints of the classroom as a social setting, the level of structure which is optimal for learning. Too much structure in relation to the learning point in hand will clearly leave too little space for learning processes to operate fruitfully. But equally, in other cases, too little structure is also likely to have a similar, negative effect on the creation and uptake of learning opportunities (Hutchinson & Hutchinson 1996). This occurs because ‘if they [the learners] are seldom sure what kind of activity is coming next, they will have to divert a large part of their energy to figuring out what to do and when to try to do it’ (Stevick 1982: 7), energy that as a result cannot be used for the primary learning task. In other words, the degree of structure in classroom discourse which is likely to be most effective will depend on to what extent it is seen to meet learners’ learning needs at any given moment in the learning process. As such, it is will vary dynamically, rather than be monolithic in nature.

4.3 Restatement of the main argument

In the prototypical classroom English language learning situation, I therefore conclude that learners’ learning needs can best be met less by the adoption of a wholesale ‘naturalistic’ form of interaction but, rather, by a ‘Goldilocks’ level of pedagogical structuring, i. e. , neither too much nor too little, the exact degree varying, of course, according to the nature of the learning needs to hand. By a re-invention of this kind it is possible to go some way towards reconciling the pressures of the ‘educational imperative’ that operates in formal learning situations, on the one hand, and, on the other, the preference for more ‘naturalistic’ forms of classroom interaction favoured by the currently dominant conceptual model of teaching.

4.4 Pedagogical implications

Practical examples of the elements of such a pedagogy can be found in, e. g. , Littlewood 1992: Chs. 6 & 7, the ‘Communication Games’ series of teaching activities books (e. g. , Hadfield 1995) and in the overall design features of coursebooks such as Hutchinson 2008. In the latter, a series of unit sections are first of all studied, each involving communication and language work which gradually proceeds from ‘input’ to learner ‘output’.

Each also moves from initially eliciting relatively ‘closed’ responses from the learners to ending with ones that are a good deal more ‘open-ended’. Also, work done in earlier sections is often recycled and built on further in later ones, meaning that there is also progression in the kind of student response elicited in this respect as well. Then, once all the sections have been completed, students build further and in an integrated way on that part of the work as a whole by undertaking a related language learning project, in which they are given extensive opportunities to develop further complex, personalised responses to what has been studied.

Therefore, in this way, in overall terms, work which begins in a relatively tightly-structured manner gradually unfolds to provide the basis for the kinds of responses by learners that approximate closely to those that might occur in communication outside the classroom. In such ways, in other words, while the innate ‘didactic’ character of most classroom discourse must be taken into account, it is nevertheless possible within its confines to also create the conditions for forms of discourse more akin to those preferred by the pedagogical model in focus. Once again, also, it should be noted, the innovation strategy used has been one of re-invention rather than ‘revolution’.

5.1 Summary of the argument

A view of what might constitute the optimal form of language teaching pedagogy has become increasingly influential in important parts of the ELT professional discourse in recent years. However, in order for the fruits of this thinking to be of benefit to most of the ELT world, the needs of the prototypical English language learner and the characteristics of the related learning situation also need to be taken into account. In other words, in order to avoid the pitfalls of an ‘applied science’ (Wallace 1991) or ‘linguistics applied’ (Widdowson 2000) approach in attempting to relate conceptual models to practice, ‘bottom-up’ pedagogical perspectives must be given the same or greater weight as ‘top-down’ ones.

5.2 Concluding discussion

All forms of successful innovation depend on satisfactorily linking together new understandings with those which are already familiar (Wedell 2009). In any attempt to innovate in pedagogy, thus, new ideas must be satisfactorily ‘keyed’ into the foundation of existing pedagogical practice. In other words, appropriate forms of ‘re-invention’ need to take place.

This paper therefore attempted to construct a picture of the prototypical English language learner and learning situation as the starting point for an evaluation of the likely relevance to the ELT ‘world’ of the model of pedagogy which currently tends to prevail in the ELT professional discourse. The analysis indicated that much of

this kind of pedagogy, in its ‘strong’ form, is unfortunately incompatible with the learning needs of the prototypical English language learner and the learning context.

However, the attempt has also been made to show how ‘re-invented’ forms of pedagogy can be developed, which, while cognisant with the currently dominant theoretical pedagogical model, simultaneously attempt to take into account the prevailing realities of the majority of ELT settings. In particular, an outline has been provided of how, in this way, a focus on task-based learning, learner autonomy and ‘naturalistic’ discourse can be successfully blended with the everyday pedagogical repertoires of the kind prevailing in most English language learning situations.

At the same time it should be emphasised that there is no intention here to propose a replacement of one model of pedagogy with another. Rather, what has been provided is a sketch of the general features and principles involved in what is believed likely to be a more successful, re-invention-based method for attempting innovation in this area, one which can be further adapted in a fine-grained manner to suit the ways in which, of course, despite the features they have in common, the details of individual English language learning situations inevitably also vary from one instantiation to another. It is hoped that in this way – by valuing equally both existing, widespread forms of pedagogy as well as the potential in academic research and theorising about pedagogical alternatives, and considering how the two might be optimally integrated – that this paper has helped to show how academic and practitioner perspectives on ELT pedagogy can be productively mediated.

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Alan Waters died in July 2016.

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REFERENCES

- Allwright, R. L. (1988). Autonomy and individualisation in whole-class instruction. In A. Brookes & P. Grundy (Eds.), *ELT Documents 13: Individualization and autonomy in language learning* (pp. 35-44). London: MEP, British Council.
- Benson, P., & Voller, P. (1997). *Autonomy and independence in language learning*. New York: Longman.
- Carless, D. (2002). Implementing task-based learning with young learners. *ELT Journal*, 56(4), 389-396.
- Carless, D. (2007). The suitability of task-based approaches for secondary schools: Perspectives from Hong Kong. *System*, 35(4), 595-608.

- Clark, J. L. (1987). *Curriculum renewal in school foreign language learning*. Oxford; New York: Oxford University Press.
- Clarke, D. F. (1989). Materials adaptation: why leave it all to the teacher? *ELT Journal*, 43(2), 133-141.
- Cortazzi, M., & Jin, L. (1996). Cultures of learning: Language classrooms in China. In H. Coleman (Ed.), *Society and the language classroom* (pp. 169–206). Cambridge: Cambridge University Press.
- Csizér, K., & Kormos, J. (2009). Modelling the Role of Inter-Cultural Contact in the Motivation of Learning English as a Foreign Language. *Applied Linguistics*, 30(2), 166-185.
- Cullen, R. (2002). Supportive teacher talk: the importance of the F-move. *ELT Journal*, 56(2), 117-127.
- Dalton-Puffer, C. (2007). *Discourse in content and language integrated learning (CLIL) classrooms*. Amsterdam ; Philadelphia: John Benjamins Pub.
- DeKeyser, R. (2003). Implicit and explicit learning. In C. J. Doughty & M. H. Long (Eds.), *The handbook of second language acquisition* (pp. 313-348). Malden, MA: Blackwell.
- Dörnyei, Z. n. (2001). *Motivational strategies in the language classroom*. Cambridge: Cambridge University Press.
- Ellis, R. (2003). *Task-based language learning and teaching*. Oxford: Oxford University Press.
- Ellis, R. (2009). Task-based language teaching: sorting out the misunderstandings. *International Journal of Applied Linguistics*, 19(3), 221-246.
- Estaire, S., & Zanon, J. (1994). *Planning classwork : a task based approach*: Heinemann.
- Goffman, E. (1981). *Forms of talk*. University of Pennsylvania Press.
- Griffiths, C. (2012). Focus on the teacher. *ELT Journal*, 66(4), 468-476.
- Hadfield, J. (1995). *Intermediate communication games : a collection of games and activities for low to mid-intermediate students of English*: Nelson ELT.
- Holliday, A. (1994a). *Appropriate methodology and social context*. Cambridge: Cambridge University Press.
- Holliday, A. (1994b). The house of TESEP and the communicative approach: the special needs of state English language education. *ELT Journal*, 48(1), 3-11.
- Howatt, A. (1984). *A history of English language teaching*. Oxford: Oxford University Press.
- Hutchinson, T. (2008). *Project 3: student's book* (3rd ed.). Oxford: Oxford University Press.
- Hutchinson, T. (2009). *English for life intermediate student's book*. Oxford: Oxford University Press.
- Hutchinson, T., & Hutchinson, E. G. (1996). The textbook as agent of change. In T. Hedge & N. Whitney (Eds.), *Power, Pedagogy and Practice* (pp. 307-323). Oxford: Oxford University Press.
- Hutchinson, T., & Waters, A. (1987). *English for specific purposes : a learning-centred approach*. Cambridge Cambridge University Press.

- Illés, É. (2012). Learner autonomy revisited. *ELT Journal*, 66(4), 505-513.
- Kumaravadivelu, B. (1994). The Postmethod Condition:(E) merging Strategies for Second/Foreign Language Teaching. *TESOL Quarterly*, 28(1), 27-48.
- Lightbown, P. M., & Spada, N. (2006). *How languages are learned* (3rd ed.). Oxford: Oxford University Press.
- Littlewood, W. (1992). *Teaching oral communication : a methodological framework*. Oxford: Blackwell.
- Littlewood, W. (1997). Self-access: why do we want it and what can it do? In P. Benson & P. Voller (Eds.), *Autonomy and Independence in Language Learning* (pp. 79-92). Harlow, Essex: Longman.
- Littlewood, W. (1999). Defining and Developing Autonomy in East Asian Contexts. *Applied Linguistics*, 20(1), 71-94.
- Littlewood, W. (2004). The task-based approach: some questions and suggestions. *ELT Journal*, 58(4), 319-326.
- LoCastro, V. (1996). English language education in Japan. In H. Coleman (Ed.), *Society and the language classroom* (pp. 40-58). Cambridge: Cambridge University Press.
- Meddings, L., & Thornbury, S. (2009). *Teaching Unplugged*. Peaslake, Surrey: Delta ELT Publishing Ltd.
- Mensch, G. (1979). *Stalemate in technology : innovations overcome the Depression*. Cambridge, Mass.: Ballinger.
- Nunan, D. (1999). *Second language teaching & learning*. Boston, Mass.: Heinle & Heinle.
- O'Neill, R. (1991). The plausible myth of learner-centredness: or the importance of doing ordinary things well. *ELT Journal*, 45(4), 293-304.
- Owen, S. V., Froman, R. D., & Moscow, H. (1981). *Educational Psychology: An Introduction*. Boston: Little, Brown and Company.
- Prabhu, N. S. (1992). The dynamics of the language lesson. *TESOL Quarterly*, 26(2), 161-176.
- Prodromou, L., & Mishan, F. (2008). Materials Used In Western Europe. In B. Tomlinson (Ed.), *English language learning materials : a critical review* (pp. 193-212). London: Continuum.
- Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). New York: Free Press.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *American Psychologist*, 55(1), 68-78.
- Sakui, K., & Cowie, N. (2012). The dark side of motivation: teachers' perspectives on 'unmotivation'. *ELT Journal*, 66(2), 205-213.
- Scheffler, P. (2012). Theories pass. Learners and Teachers Remain. *Applied Linguistics*, 33(5), 603-607.
- Seedhouse, P. (1996). Classroom interaction: possibilities and impossibilities. *ELT Journal*, 50(1), 16-24.

- Sinclair, J. M., & Coulthard, R. M. (1975). *Towards an analysis of discourse : the English used by teachers and pupils*. London: Oxford University Press.
- Smith, R. (2008). Learner autonomy. *ELT Journal*, 62(4), 395-397.
- Smith, R., & Knagg, J. (2012). The State of ELT Research in the UK (Part 1). *ELT Research* (26).
- Spratt, M., Humphreys, G., & Chan, V. (2002). Autonomy and motivation: which comes first? *Language Teaching Research*, 6(3), 245-266.
- Stevick, E. W. (1982). *Teaching and learning languages*. Cambridge: Cambridge University Press.
- Stevick, E. W. (1996). *Memory, meaning & method : a view of language teaching* (2nd ed.): Heinle & Heinle.
- Sturtridge, G. (1982). Individulaised learning: what are the options for the classroom teacher? In M. Geddes & G. Sturtridge (Eds.), *Individualisation* (pp. 8-14). London: Modern English Publications.
- Swan, M. (2005). Legislation by Hypothesis: The Case of Task-Based Instruction. *Applied Linguistics*, 26(3), 376-401.
- Thornbury, S. (2004 December 8). Do you understand?
<http://groups.yahoo.com/group/ttedsig/message/1792>.
- Tomlinson, B. (2010). Principles of effective materials development. In N. Harwood (Ed.), *English Language Teaching Materials: Theory and Practice* (pp. 81-108). New York, NY: Cambridge University Press.
- Wallace, M. J. (1991). *Training foreign language teachers : a reflective approach*. Cambridge: Cambridge University Press.
- Waters, A. (1998). Managing monkeys in the ELT classroom. *ELT Journal*, 52(1), 11-18.
- Waters, A. (2009). Managing Innovation in English Language Education: State-of-the-Art Review. *Language Teaching*, 42(4), 421-458.
- Waters, A. (2012). Trends and issues in ELT methods and methodology. *ELT Journal*, 66(4), 440-449.
- Waters, A. (2015). "'Orwellian' professional discourse in ELT: a threat to diversity". *RELC Journal*, 46/1, 53-59.
- Widdowson, H. G. (2000). On the limitations of linguistics applied. *Applied Linguistics*, 21(1), 3-25.
- Willis, D., & Willis, J. R. (2007). *Doing task-based teaching*. Oxford: Oxford University Press.
- Wong-Fillmore, L. (1985). When does teacher-talk work as input? In S. Gass & C. Madden (Eds.), *Input in Second Language Acquisition* (pp. 17-50). Rowley, Mass: Newbury House

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Radical TEFL 4, March 2017

ARE THERE LESSONS FOR TEFL FROM THE MATHEMATICS CLASSROOM NEXT DOOR?

The next issue of *Radical TEFL* has as a theme

„What can EFLT learn from the teaching and learning of other school subjects?“

(Also see pages 66/67)

A) 'LEARNING'

Are there enough similarities, at secondary-school level, between 'learning' mathematics and 'learning' EFL, to allow one to draw lessons from the learning of maths to the learning of EFL? But what *is* learning? What are some conditions for learning to take place? Is learning often similar to enquiry? Do we, in EFLT, have a learning theory to start from?

B) LEARNING AS PROCESS ?

Is learning a process? If so, are there stages in the process which can be identified, so breaking down the problem into more manageable parts? (Dewey below). If learning is process, do the processes of learning maths have enough in common with those of learning EFL to allow EFL teaching to learn from mathematics teaching? For Dewey, learning is a kind of enquiry and the following stages are part of the process of an individual's learning/enquiring:

guessing; classification of new information; reflection against other data; “running over various ideas; developing new suggestions; comparing with one another”, carrying out “thought experiments”; experimentation and trial and error; hunting for insights and for unifying principles; looking for analogy with what is already known; comparison; and abandoning attachment to an idea. ⁵¹

Do Dewey's stages suggest that learning is partly 'done backwards', continually referring to the past? How can teacher and materials fit in with, respect and not impede learning processes?

C) THE STUDENT'S STANDPOINT

The student's attempts to overcome difficulties

In maths and EFL learning, how similar, in their underlying nature, are the general learning problems which students need to address and solve (ie, *the difficulties and stumbling blocks* in learning?) What does the maths education literature say about reasons for failure in learning maths? What can be learned from this literature?

Learning as constructing, and schemas ?

Is 'to understand' something '*to successfully assimilate it into an appropriate schema*'? (Skemp 1986:43). ⁵² What are some conditions for a student to assimilate new information into what he already grasps? How does a student construct his mathematical knowledge? What prevents a student from constructing mathematical

⁵¹Dewey, paraphrased in bold, except for italics which are quotes, (1916), *Essays in Experimental Logic*, EMEREO reprint, pp. 24, 43, 46 & 50. Also see Dewey (1910) on similarities between learning and enquiring. John Dewey was a specialist in understanding learning, before turning to education.

⁵²Richard Skemp, a maths teacher, was the first Professor of Education at the University of Warwick.

knowledge? What can TEFL learn here? Mathematics learning seems to proceed step-by-step, accumulatively, yet at the same time the maths learner seems to 'understand backwards', going into his existing understanding (or schemas) in order to 'construct' new understanding (Skemp 1986): is this apparent combination of learning strategies applicable to understanding and guiding learning in EFL?

Memory

Learners often work through mathematical questions and problems using algorithms and formulae which allow the application of rote and routines, and which rely on memory rather than understanding (Skemp 1976): how relevant is this strategy for understanding EFL learning, and for pedagogy? What is the role of memory, association and recall as a factor in learning new vocabulary, concepts and ideas?

Links between new learning and past learning?

Does learning occur in the present? Aren't students often, in learning, going into past memories, as well as carrying out '*thought experiments*' (Dewey) in the future? How can the teacher fit in with this? Are there lessons from maths education for TEFL here?

D) THE ROLE AND FUNCTION OF MATERIALS AND PEDAGOGY

1. Aren't maths and language chiefly linked, in their essence, by both being *a vast network of structures and systems* (Saussure on language), and don't materials and pedagogy, at secondary level, require to start from **that** understanding - rather than starting from an understanding of the function of language (as communication). Hasn't the teaching of EFL since about 1980 been based on a huge confusion between the essence and function of language? Do we need to start again?!

2. In mathematics teaching, examples are extensively used to illustrate patterns and regularities: do students need such regularity in input in EFL learning? Examples in maths learning allow the student to work out a new and individual schema for himself: what is the place of examples in EFL learning in helping this process?

3. If good pedagogy is linked to learning in that "*pedagogy (is) intended to anticipate and prevent (learning) problems*" (John Elliot), does this apply to both mathematics and to EFL learning? In a mathematics class, students may all see new material for the first time: whereas in EFL classes some students have often seen material before, and grasped (or failed to grasp) it, and some students are seeing it for the first time: what are implications for comparing pedagogy in EFL and maths learning?

4. Within a large maths secondary-school class the teacher often allocates work to individuals (and to small groups) at differing levels of difficulty ('differentiation'). What can TEFL learn from maths pedagogy and maths materials here? Can differentiation be helpful in EFL learning?

E) METHODOLOGICAL ISSUES IN INVESTIGATING LEARNING

1. Researching subjectivity

How can Dewey's above subjective (and perhaps sometimes subliminal) learning processes be investigated? How can we access or research a mental action or

interaction in the context of maths learning, or EFL? How can we research the learner's subjectivity? How can we understand how a student is trying to make sense of a new difficulty?

2. **Evidence**

The processes, problems and wrong turnings in maths learning are visible, available as evidence, as students write down stages in their thinking: Can a student's written work supply evidence of the EFL learning (or failing to learn) process? Can we empathetically *enter into* the student's subjective standpoint in this way using evidence provided in student output? Could we do this for understanding the learning of writing?

3. **Learning from the study of history.**

Documents and written records are used as evidence in the study of history. If all mathematics learning (or failure to learn), as written down by the student, has taken place in the (immediate) past, does this mean that a study of the learning of maths (or EFL) is a kind of historical enquiry?

Alistair Maclean

SOME WORK ON UNDERSTANDING MATHEMATICS LEARNING AND FAILURE TO LEARN

Gates, P, (ed)(2001), Issues in mathematics Teaching, RoutledgeFalmer

Glaserfeld, Ernst von (1991)(ed). Radical Constructivism in Mathematics Education. Kluwer Academic Publishers.

Glaserfeld, Ernest von (1995), Radical Constructivism: A Way of Knowing and Learning, A full statement of his thinking on constructivism. See esp. ch. 2 [philosophical-historical context]; ch. 3 [on Piaget]; & ch. 10 [practical implications].

Gray, E., Processes and Concepts as false friends, in Tall D & Thomas (ed)(2002). On understanding children's misconceptions in mathematics learning

Jaworski, Barbara (date ?), Investigating Mathematics Teaching: A constructivist enquiry, Falmer Press. Ch. 2. Excellent introduction to constructivism in a school subject.

Johnston-Wilder, Sue et al (eds)(2004 2nd. ed), Learning to teach mathematics in the secondary school, Routledge, pp. 48-51 for a window on some thinking and issues in mathematics education.

Mason, John (1994), Enquiry in Mathematics and in Mathematics Education, which is ch. 15 of Ernest (1994). Includes an overview of some issues in researching mathematics education. Mason is leading researcher of mathematics education.

Mason, J. & Johnston-Wilder, Sue (eds)(2004), Fundamental Constructs in Mathematics Education, RoutledgeFalmer / Open University

Orton, A, What cognitive demands are made in learning mathematics?, which is ch. 3 of Orton, A (ed) (1987, 1992 2nd. ed), Learning Mathematics: Issues, Theory and Classroom Practice, Continuum

- Orton, Anthony, Learning mathematics: Implications for teaching, In Orton & Wain (1994), pp. 35-57
- Orton, Anthony and Wain Geoffrey (eds)(1994), Issues in Teaching Mathematics. Chs. 1, 3 10 & pp. 162-68.
- Simon, M., Constructivism, mathematics teacher education, and research in mathematics teacher development, which is ch. 14 of Steffe & Thompson (eds)(2000). Tries to understand the maths student's learning processes.
- Skemp (1976), Relational Understanding and Instrumental Understanding, *Mathematics Teaching*, 77, pp. 20-26. Explores the meaning of 'understanding'.
- Skemp, RR, (1971, 1986 2nd. Ed), The Psychology of Teaching Mathematics, Penguin. **Seminal book within mathematics education.** Short and accessible, outlines the theory of learning schemas. See esp. pp. 30 -50 & 73-87. **pp. 40-43 is key.**
- Steffe, L.P. & Thompson, P. (eds)(2000), Radical Constructivism in Action: Building on the pioneering work of Ernest von Glasersfeld, RoutledgeFalmer
- Swan, Malcolm (2001), Dealing with misconceptions in Mathematics, In Gates (2001)
- Tall, D. & Thomas M (eds)(2002), Intelligent Learning and Understanding in mathematics: A Tribute to Richard Skemp

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RADICAL TEFL 4, MARCH 2017

THE STUDY OF EFLT HISTORIES

Radical TEFL would like to publish local histories of EFLT, linked to the EFL classroom. Articles from teachers and those who are close to classroom problems in any way are especially welcomed.

The following questions are intended as entry points to contexts and approaches of such histories.

(A) WHAT IS A HISTORY OF A FIELD?

Is a history of a field the history of *what happened*? Is a history a study of *ideas* in a field? Is a history a study of *developments* and of processes: or of reaction and protest against consensus? How far is the history of a field about interpretation and understanding: if so, by whom? How far should a history understand the historical and social context in which that history is set? Does a local history need to take into account wider or deeper trends and ideas?

(B) SOURCES AND EVIDENCE

What are some sources of claims to evidence for histories of EFLT? From those who lived through an historical period? From learners and teachers: but where will such sources be found? From coursebooks of a given period? Journal articles? The connections between any of these? How relevant, to investigations of secondary school practice, are sources which comprise the academic literature and ‘conversation’ of EFLT source disciplines such as Applied Linguistics? How does one know if one can trust a source, or claim to evidence? Does one need to take into account the *purposes* or the (underlying) motives of the authors of sources such as research reports, journal articles, etc. , before understanding the significance of these sources for EFLT history? How far is it legitimate to probe into the underlying assumptions, career ambitions and secondary-school teaching experience of those authors?

(C) WHY WRITE AND STUDY HISTORIES?

Why study history? To learn lessons from the past, and so to avoid similar wrong turnings? To better understand the present? To point out myths? To identify trends and reactions? To draw attention to alternative traditions which may have been eclipsed and lost by new thinking? What can historical studies of EFLT learn from history’s discussions of methods of historical investigation? . How significant are individuals in history? How significant, by comparison, are leading ideas? How do ideas become translated into classroom practice: what would an example of a history of such attempted links look like; what methodological problems would such work involve?

(D) METHODOLOGICAL ISSUES IN DOING HISTORY

1. In what ways are methods of enquiry in history similar to methods in the mathematical sciences, and in what ways different? What are some starting points for

a history? If enquiry, in general, starts from a problem or doubt (Dewey), does this imply that a historical enquiry requires, in order to start, a clearly defined and genuine problem, or some puzzle? What counts as a 'genuine' problem? Is a history always connected to a standpoint; or can one be a 'spectator' of history; or are these two positions a false choice?

2. What methods of enquiry can history use to observe and interpret the past? If learning is a kind of thinking, how, then, can one get inside the thinking which one is studying: how can one describe and understand the thought of learners and teachers? What can EFLT investigations learn from approaches to enquiry in history, and their underlying issues. (For example, on 'entering into' people's subjective experiences in the past [Collingwood, 1946]). How can knowledge claims about the past be validated or scrutinised?

(E) HISTORIES OF MODERN LANGUAGE TEACHING

What can EFLT learn from the recent past of modern language teaching in the UK or USA, or of French in Canada, or Russian in Poland? Can EFLT learn from their histories of their teaching approaches and materials, or from their learners? What can EFLT learn from successful textbooks writers of the past? (eg, Alexander, O'Neill). Why were they successful? In what ways might histories of the private and public sector in EFLT be different, and similar? How far have successful traditions in the past, in EFLT, been eclipsed (and so forgotten) by modern influences?

(F) LEARNING FROM HISTORIES OF EDUCATION

What can EFLT learn from histories of mathematics teaching, or from school subjects which might share features with modern language teaching? How aware is thinking in EFLT of histories of mainstream education since about 1980: e. g. , the work of Eraut, James Calderhead, Donald McIntyre and Graham Nuthall? How far has the work of John Dewey been mined for insights for EFL learning and teaching? Is it a fair to say that EFLT has, in general, neglected work in mainstream education which was produced in the 20th century?

(G) OUTSIDE INFLUENCES ON EFLT HISTORY

1. 'Source disciplines' and contamination by ideologies?

How far have some ideas coming into EFLT (since about 1980) been ideological? Or been based on unexamined assumptions? What are the risks connected with an ideology, or dominant understanding, entering a practical field? How far is a history of EFLT linked to economic factors, publishers, and to university courses? How far does thinking from academic fields outside EFLT influence how teachers, over time, change their classroom practice? When an intellectual field claims to have relevance for another field, how far is there a risk of its influence, inasmuch as it affects the historical development of that field, being too strong? How can one distinguish between a productive **inter**-disciplinary relationship for EFLT with an outside field, and an **intra**-disciplinary 'colonisation' of EFLT by outside source disciplines?

2. The influence of the British Council and state patronage

Can state patronage distort the development of a field? How might the history of a field be influenced by state patronage? What lessons can be learned from interventions by the British Council in promoting the Communicative Approach? For example, how far did their work in Eastern Europe (about 1990-2000) start from an appreciation and understanding of existing historical pedagogical and language-teaching traditions. (Would someone like to review Phillipson [1993] for *Radical TEFL*?)

(H) EFLT AND APPLIED LINGUISTICS (ALLT)

1. How far has the relationship between ALLT and EFLT been helpful to EFLT, and in what ways has the influence of ALLT been too influential? What lessons can be learned from this relationship? How has ALLT, since about 1980, tried to understand the *language-teaching* problems which secondary teachers and their students need to solve? Has ALLT validated (warranted) its ideas in secondary classrooms, and in teaching materials which were influenced by thinking from ALLT [discourse analysis, register, functional syllabuses, etc?]. Or are these ideas and their presentation on Masters' courses sometimes job-creation schemes for academics whose primary interest is not education?

2. In its studies over the last 30 years, how far has ALLT sought and encouraged publication by teachers, debate with teachers and feedback from teachers? How far has ALLT taken account of thinking in mainstream education since about 1980 as a check on some implications of its thinking for secondary-school teaching?

Alistair Maclean./ Contd.

RADICAL TEFL 4, MARCH 2017

EFLT HISTORIES / REFERENCES

Some work on the history of EFLT, and from mainstream education

- Carr, W. , (1997), Professing education in a post-modern age, *Journal of Philosophy of Education*, **31/2**. See esp. pp. 320-25, on pre-modern history of education and of enquiry.
- Carr, W. , (1983), Can educational research be scientific?, *Journal of Philosophy of Education*, **17/1**. On different traditions in educational research, also, asks if education can be 'researched'.
- Castagnaro, PJ, (2006), The Audio-Lingual Method and Behaviourism: From Misunderstanding to Myth, *Applied Linguistics*, **27/3**. History done by going to original source. (also see Swan 2007)
- Eastman, George (1967), The ideologising of theories: John Dewey's Educational Theory as a case in point, *Educational Theory* **17/2**, esp. pp 103-115. On ideology in education.
- Howatt, APH with Widdowson HG, (1984, 2004), A history of English Language Teaching, OUP
- Hunter, D. & Smith R. , (2012), Unpackaging the past: 'CLT' through ELTJ Keywords, *ELT Journal*, **66/4**. An historical study of an idea in EFLT through analysing the frequency of the use of some key words (Also see the paper by Richard Smith (2016) in *Applied Linguistics* **37/1**)
- Mackay, W (1967), Language Teaching Analysis. Indiana University Press, There is a section of about 10 pages on 20th century ELT History, covering the same area as Richards (below)
- Phillipson, R. , (1993), Linguistic Imperialism. Oxford University Press
- Richards Jack C. , (1984), The Secret Life of Methods, *TESOL Quarterly*, **18/1**. Or see Mackay.
- Swan, M. , (2007), History is not what happened: the case of contrastive analysis, in Swan (2012), first published in *International Journal of Applied Linguistics*, **17/3**
- Swan, M. , (2012), Thinking about language teaching, OUP. Esp. for articles 10, 13 & Swan (2007)
- White, RV (1989), The ELT Curriculum: Design, Innovation and Management, esp. pp. 83-84, *System*, **17/1**. On the historical influence of Applied Linguistics on EFLT

Some work on methods of enquiry in history

- Carr, E. H. , (1961, 1986) What is History?, esp. ch. 1, on 'facts' in history. Palgrave Macmillan.
- Collinwood, R. G. , (1946), The Idea of History: **key text** which challenges 'scientific' approaches to history, and summarises alternative approaches from Croce, Dilthey and Vico.. See part V, esp. pp. 210-17; 269-74; 287-93, for Collingwood's thinking. Also see pp. 63-66 on Vico's method of 'entering in'; on Croce [4. iv]; on Dilthey; & pp. 81-88 .
- Evans, Richard . J. , (1997), In defence of history, Granta Books. Ch 2. **Clear presentation** of issues in historical method. Professor of History at the University of Cambridge.
- Haddock, BA (1980), An Introduction to Historical Thought, Arnold, chs. 5, 6 [on Vico] & 10 (esp p. 177/81); also, chs. 11 & 12. On ways of approaching and doing history.
- Marwick, Arthur, (2001), The new nature of history: knowledge, evidence, language. Opposed to post-modern influences. Esp. pp. 1-30. Palgrave Macmillan.

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CALL FOR ARTICLES

AND GUIDELINES FOR CONTRIBUTORS

Radical TEFL would like to publish work which probes beneath the surface of EFLT: work which examines assumptions, myths or contemporary orthodoxy in our field, or which in some way put under the spotlight some aspect of EFLT.

The following kinds of articles would be welcomed:

1) For EFLT to construct more secure foundations for its practice, it can learn from “*reports from the classroom*” which treat aspects of the realities of large-class teaching. Articles are needed from teachers, perhaps reporting on problems met in pedagogy (See pages 4,5 & 6).

2) *Radical TEFL* would like to publish longer and more analytical articles which perhaps draw on educational thinkers from outside EFLT, whose thought and experience could open up new and fresh approaches and perspectives to understanding our problems, while related to classroom realities. For example, the classroom researchers James Calderhead, Donald McIntyre and Graeme Nuthall, from mainstream education, offered numerous ideas and understandings about teaching, and about learning about teaching, but which have not yet been considered for their specific implications for TEFL.

For the coming issues the following specific themes are suggested:

ISSUE NUMBER 5

(For publication in March 2018, and articles needed for 30 September 2017):

“What can EFLT learn from the teaching and learning of other school subjects?”

This could include discussion of different approaches to TEFL (and Modern Language Teaching), or approaches to designing TEFL materials, in different countries, and differing local contexts.

ISSUE NUMBER 6

(For publication in March 2019, and articles needed for 30 September 2018):

Three possible themes are: (Also see pages 5 & 6)

(a) *“Histories of EFLT and ways of doing EFLT History, in order to better understand our past and our present”*(See p. 62)

(b) *“What didn’t work in a lesson: Can we learn more from ‘failed lessons’ than from successful ones?”* (See page 5). An article could simply be a short report on a lesson which failed, or a student who failed, with lessons drawn.

(c) *“Exploring or evaluating a research claim or idea in your classroom”*
Researchers do not always test out their thinking in real classroom situations. This is your chance to give some feedback, against experience.
(Page 6)

LONGER ARTICLES

Longer articles should, so far as possible:

- Start from a clear research question, or from a problem met in practice;
- Try to probe under the surface of the question addressed; and
- Be grounded to the EFL classroom, normally by use of examples and by being based on experience.

To help others to follow up your work, when citing sources in articles which present an argument, please, as far as possible, specify chapters or page numbers where the experience or idea you refer to can be found. Shorter articles reporting on classroom experience (see pages 5 & 6) do not require citations and references. Send your work in WORD to: alistair.maclean@outlook.com Copyright of articles will belong to the author, and your article will be published in both a print version, and be available as a free download on the *Radical TEFL* website, at:

<http://radicaltefl.weebly.com>

Alistair Maclean/Publisher

**LECTURERS!
SHORT ARTICLES WANTED FROM YOUR STUDENTS!**

Radical TEFL would like to publish articles from teachers, based on classroom experience which, for example, critically evaluate ideas studied on courses against large-classroom realities.

Lecturers – please encourage your students to think that their experience is worth writing up and sharing. See pages 4, 5 & 6 of this issue for more details.

**PRINT DISTRIBUTION, AND FINANCING
of *Radical TEFL* 3 (March 2016 issue)**

300 copies were printed and about 250 distributed, approximately as follows: 95 copies to lecturers in 65 Departments of Education in the UK and Eire; 45 copies to lecturers in 30 UK Departments of Applied Linguistics; to about 15 academic libraries; and about 20 copies at IATEFL Birmingham. Copies were also sent to language schools and publishers, to the British Council, and to IATEFL committee members. Many thanks to all colleagues who have given encouragement and feedback.

The cost of printing and distributing *Radical TEFL* 3 was about £800 and was paid for by the publisher. *Radical TEFL* receives no financial assistance or sponsorship, and offers of help (including for a single issue) would be welcomed, perhaps from an academic institution which would like to share some editorial responsibility? Please also send your ideas on how *Radical TEFL* might develop.

The electronic version of this *Radical TEFL*, and back issues,
are available as a free download at

[http://radicaltefl. weebly. com](http://radicaltefl.weebly.com)

WHY RADICAL TEFL?

The *Radical TEFL* project has been started with the hope of:

- encouraging debate about foundations, assumptions and concepts within TEFL;
- providing a forum for responses from the classroom (and from mainstream education) to second language acquisition studies, Applied Linguistics for Language Teaching, social theories and other influences on TEFL; and so:
- adding to the perspectives through which we can better understand problems, realities and possibilities in TEFL, especially in state secondary-schools around the world.

If you are sympathetic to this project, please write an article, or encourage a student-teacher to write. (Pages 4/6 and 66/67)

END OF ELECTRONIC VERSION OF *RADICAL TEFL* 4, MARCH 2017