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**INNOVATION IN TEACHER EDUCATION:
COLLECTIVE CREATIVITY IN THE DEVELOPMENT OF A TEACHER EDUCATION INTERNSHIP**

Viv Ellis (King's College London) & Ann Childs (University of Oxford)

1. INTRODUCTION

Teacher education as a field, especially the form associated with universities, is often regarded as resistant to change and slow to innovate (Gibb, 2014; Hess & McShane, 2013; Saxton, 2015); Berliner (1984) once attributed this passivity to 'timidity, lack of vision, and ignorance' (p. 1; see also McCaleb, Borko, Arends, Garner & Mauro, 1987). The history of developments in initial teacher education (ITE) in England over the last 25 years might be characterised as reactive to frequent, successive and often chaotic waves of central government policy (Author 2, 2013; Author 1 & another, 2015; Furlong, 2013). Whilst noting this resistance to change and perceived passivity, this situation has not been the case always and everywhere and one of the most frequently cited examples of radical change and innovation in ITE in England and, indeed internationally, has been the Oxford Internship Scheme (OIS), a one year programme for graduates leading to the Postgraduate Certificate of Education (PGCE) (e.g. McIntyre 1990, 1991, 1993, 1997; see also Burn & Mutton, 2015; Hayward, 1997; Hagger & McIntyre, 2000; McIntyre & Hagger, 1992). The development of the OIS is very closely associated in the literature with Donald McIntyre, Reader in the Department of Educational Studies (OUDES) at Oxford from 1986 to 1996 and subsequently Professor of Education at Cambridge University. The date commonly associated with the implementation of the scheme is 1987, the year the programme formally began, after what is often assumed to be a two-year planning period.

While McIntyre's contribution to the theorisation and development of the OIS cannot be underestimated, the emergence of this pioneering form of ITE on an internship model can

be traced over at least the preceding 13 years as OUDES developed as a full department of Oxford University. Indeed, the emergence of the OIS can be seen in parallel to the development of a research culture both in the department and across the network of local schools and the forging of new kinds of collaborative, outward-facing relationships with schools and the local education authority (or school district). Rather than seeing the OIS as essentially a production led by one creative individual within a social group which elaborated on and further developed some of his key ideas, in this paper, we draw on our research into the history of the OIS to offer an empirical description and analysis of its development as an instance of interactively emergent collective creativity over the period 1973 to 1987, introducing aspects of the development of the OIS that have been subordinated. In making this analysis, we draw on two main data sets: first, long recorded interviews and unrecorded conversations with key protagonists from that period; second, an archive of documents collected by some of these research participants covering most aspects of the scheme's development. Through an examination of how this pioneering form of school-based, research-informed ITE emerged over a 13-year period, we show how such an innovation may be seen as a collectively creative response to a felt need to change and also to suggest what lessons there might be for those seeking change in teacher education today.

The OIS emerged at a time of great policy change in ITE in England with the recommendations of the James Committee (Department of Education & Science, 1972) making the PGCE a standard qualification for teaching in state secondary schools from 1974 onwards. There was also increasing pressure from the Council for the Accreditation for Teacher Education (CATE) through the 1980s - as well as directly from government, then and later - for more school-based training and a different theory/practice relationship (see Furlong, 2000). Internship was such a transformative idea in its time because the OIS was an essentially school-based programme (rather like the residency programmes that emerged in the USA in the early twenty-first century [c.f. Taylor & Klein, 2015]) and, crucially, in close and avowedly equal partnership with local schools in both design and delivery. Subsequently, this model became the default for graduate ITE programmes throughout

England following government Circulars 9/92 and 14/93 (Department for Education, 1992; 1993).

There is obviously a policy and political analysis that might be undertaken with reference to the questions driving our study. In the paper, however, we are focused on trying to understand the specific social situation of development in which the new idea of a teacher education *internship* emerged and to address the often un-addressed ‘how’ question of innovation. This article makes a contribution to the history of teacher education and how we theorise change in the field by providing an empirical description and analysis of one highly influential programme internationally and using the tools of cultural-historical theory to theorise innovation as a case of inter- and intra-organisational learning. Further, we believe that the documentation of the history of innovation in teacher education is something that may be able to support others, now and in the future, to take a more transformative stance on how new members of the teaching profession are prepared.

2. INNOVATION IN TEACHER EDUCATION

The Oxford Internship Scheme (Benton, 1990) was planned during 1985-1987 in an attempt to tackle some of the major problems which research and experience had revealed to be endemic in the pattern of teacher education dominant in most English-speaking countries for most of this century (McIntyre, 1997, p. 1)

Statements that the OIS was ‘planned during 1985 – 1987’ have inadvertently helped to shape a common understanding about how this innovation came about. Unsurprisingly, and consistent with this history, the research on the OIS also arises out of the period after its implementation in 1987 and can be organized into three main categories. First, there are publications that develop the theoretical principles associated with the OIS, written mainly by Donald McIntyre himself along with his doctoral students and colleagues (see, for example, Burn & Mutton, 2015; Hayward, 1997; Hagger & McIntyre, 2000; McIntyre, 1990, 1991, 1993, 1997; McIntyre & Hagger, 1992). Many papers dwell on the key idea of ‘practical theorising’ as a means to develop beginning teachers’ professional thinking and on

the distinctive expertise that teacher educators bring to supporting the development of beginning teachers.

The second category includes reports on research that investigated aspects of the OIS as it unfolded, often by school teachers seconded to OUDES who undertook doctoral studies and later became members of the academic staff (see for example Burn, 1997, 2006; Davies, 1996; Hagger, 1997; Pendry, 1997). Two pieces of research by Corney (1993) and Burn (2006), for example, showed how university and school-based teacher educators brought different but complementary expertise to the professional preparation of beginning teachers.

More recently, in the light of changes in teacher education policy internationally, a third category of writing on the OIS has re-examined it critically as 'unfinished work' theoretically and practically (Author 1, 2010) or, in the context of political pressure to reform, put it forward as an example of 'research-informed clinical practice' (e.g. Burn & Mutton, 2015). In writing about the OIS, Burn and Mutton again focus principally on the contributions of McIntyre, his co-authors and those he influenced post-1987.

However, what this writing on the OIS does not capture is the complexity of the change processes leading up to 1987 nor does it recognise the complex and multi-layered activities in which the key protagonists from that period participated. These protagonists collectively created the conditions for change and shaped the innovation over the preceding 13 years yet this collective contribution figures infrequently, if at all, in the three categories of writing we have identified. In this paper, we present previously subordinated aspects of the development of the OIS by offering an original analysis of it as a case of collective creativity that emerged, interactively, over a much longer period than has been usual and as an outcome of increasingly explicitly motivated, continuous processes of development. Building such an analysis will involve telling a different story about creativity, innovation and change in relation to the historical data and retrospective accounts of the environment at the time.

2.1 Conceptualising creativity, innovation and change

According to Miettinen (2014), “the psychology of creativity has long regarded the creative individual as a source of novelty” (p. 1). Even popular, ‘systems’ or ‘field’ views of creativity (e.g. Csikszentmihalyi, 1988) tend to be ‘individual-centred’ (ibid.) with the unit of analysis being the acts of a creative person within their cultural arena, subject to the evaluation of a field. Cultural-historical approaches instead regard creativity as a ubiquitous dimension of human development in which imagination emerges during play as a child and which is later integrated with concept formation during adolescence (Ayman-Nolley, 1992). For Vygotsky (1971), artistic creation provided a model of the creative process in general rather than being its apotheosis, foregrounding the role of personal emotions, needs and desires. In Vygotsky’s theory of creativity, collectively experienced emotions have the potential to transcend the individual; feelings become meaningful socially, eventually attaining the status of a concept or idea – becoming an object of activity in Leont’ev’s (1978) sense (a shared ‘problem-space’ that is worked on collectively) - and perhaps then becoming significant historically and societally. Vygotsky argued that a process of concept formation that begins with a shared feeling can lead to a collective, distributed form of creativity that has historical significance. He described this ‘combinatory process’ as follows:

When we consider the phenomenon of collective creativity, which combines all these drops of individual creativity that frequently are insignificant in themselves, we readily understand what an enormous percentage of what has been created by humanity is a product of the anonymous collective creative work of unknown inventors. (Vygotsky, 2004, p. 10)

Innovation, on the other hand, is often used to refer to an ‘economically utilized new product, service or production method’ (Miettinen, 2014, p. 2) and consequently can be treated separately from the creativity that resulted in a new idea; innovation can often be inflected through a purely economic discourse. Although innovation has most often been defined within commercial settings, innovation has become significant within the public sector (Daglio, Gerson & Kitchen, 2015) as well as within organisations more generally (Martins & Terblanche, 2003; Nooteboom, 2000). As with the Vygotsky-inspired cultural-historical approach, critical organisational theories of innovation reject the mind/body dualism and regard creativity as part of innovation in that new ideas are formed into social

practices that have societally significant goals or outcomes: innovation, as a process, encompasses how ideas are taken up into practices and for what ends. As Miettinen (2014) points out, studies of innovation over the last 30 years have shown that ‘interorganizational collaboration’ is the locus of innovation in public services as well as businesses and that new ideas are ‘interactively emergent’ (Hendriks-Jansen, 1996) arising out of a distributed form of collective agency (p. 2). However, much of this research, informed by an information-processing model of mind, with a focus on structures and linear channels of communication, does not help to make sense of the ‘how’ of interactive emergence as a phenomenon nor the ‘mutual development of a joint vision’ and ‘a joint commitment to a project to realize the vision in practice’ (Miettinen, 2014, p. 4).

Crucially, a cultural-historical perspective on change regards contradictions as potential generators of development in practices (Engeström, 1987; Ilyenkov, 1977). Contradictions are emotionally experienced dilemmas as well as inherent structural constraints affecting the choices available to participants in culturally-organised, collective human activities. They may be expressed as disagreements and resistances and may have built up over the history of the particular activity – with the primary contradiction being between the use value and exchange value of the outcome. Bateson (1972) used the somewhat similar concept of ‘double bind’ to describe a situation in which a successful response to one aspect of a dilemma inevitably means an unsuccessful response to another. Using a cultural-historical approach, identifying the contradiction or double-bind – ‘surfacing’ it and raising it to the level of an articulated abstraction – is seen as the first stage in overcoming it, or ‘breaking away’ from it (Engeström, 1996) so that a new idea and a new vision for the practice can emerge. The importance of this first step cannot be under-emphasised even though the terms and conditions for the change may not be at all clear. Bratus and Lishin (1983) described this recognition of the need to change as a ‘need state’, an “indeterminate, temporary objectless desire” (p. 43). Miettinen emphasizes the significance of the need state in forming directions for future collective action:

In collective practices, a need state can be regarded as an intuitive, only partly conscious grasp of an emerging contradiction in an activity. Its full articulation often requires new conceptual resources..... A need state becomes a motive [for a new, emerging activity] when it meets

an object (that is, a projected material solution to the contradiction)
that opens a horizon for inventive actions (Miettinen, 2014, p. 6)

In other words, the need state leads to participants in a practice anticipating a new future for their activity even though they are as yet unable to take direct steps towards it because they lack the conceptual tools to do so.

This emphasis on studying retrospective accounts of emotion and creativity in a cultural-historical analysis such as ours can be distinguished from the developmental intent of many activity-theoretical studies of teacher education (c.f. Cole & Engestrom, 1993; Miettinen, 2006; Scribner, 1985).

3. RESEARCH DESIGN, DATA AND ANALYSIS

Our research sought to answer the following questions: 1. How did the idea of a teacher education *internship* emerge within OUDES and across its local network? 2. How might the emergence of this new idea be conceptualized as a process of change? Accordingly, we have been interested both in establishing a description of change in teacher education at Oxford at that time as well as a conceptualization of the change process. We have therefore sought to engage theoretically and methodologically with our questions rather than taking the narrow, socially and intellectually isolated historical approach McCullough and Watts (2003) referred to as 'Acts and facts' (see also Carr, 1976). While some aspects of our research have drawn on the strategies of oral history (Adriansen, 2012; Thompson, 2000) and life history (e.g. Goodson & Sikes, 2001; Mandelbaum, 1973), our focus has been on trying to understand, as much as possible, the cultures of organisations within which an idea formed as a practice rather than trying to define the contribution of any one individual in a sequence of events.

We generated and collected two sets of data. The first set consisted of 5 long, recorded interviews with key protagonists from the period 1974 to 1987. Our respondents were selected on a snowball sampling basis beginning with Peter Benton, the editor of the first book about the OIS (Benton, 1990) and a member of the academic staff at OUDES from 1973 to 2001. From Peter Benton, we recruited Tim Brighouse (Chief Education Officer for

Oxfordshire during this period), Jeff Thompson and Anna Pendry (academics at OUDES at the time) and Harry Judge (the Director of OUDES from 1973) as respondents, who we each interviewed formally for between 45 and 90 minutes between 2013 and 2016.

The second data-set was drawn from a collection of over 100 documents (awaiting cataloguing) held by Peter Benton as an informal archive of the OIS. This included a comprehensive range of textual artefacts from the period; for example, all of the papers written and circulated in the department by Harry Judge between 1973 and 1988; papers written and circulated by other members of the academic staff during this period, including reports of working parties; student handbooks; examination papers; prospectuses; etc.. The key documents from which quotations are taken in this article are listed as an appendix and available at [\[link anonymised for review\]](#).

The interviews were transcribed and analysed by both authors separately before coming together to develop a joint understanding and interpretation. Two analytic passes were made: first, we made an attempt to establish a pattern of events and decisions from the narrative accounts of the interviewees; second, we sought to establish how these separate accounts related to each other to suggest how the process of cultural change being narrated might be conceptualized. To achieve this second level of understanding, our analysis was informed by the sensitising theoretical concepts from CHAT discussed in the previous section of this paper. We sifted the archive of documents for any that were specifically mentioned by respondents as well as any that were directly relevant to the development of a narrative account. Quotations from the six key documents as well as the results of our first, descriptive analysis of interview transcripts were written into a long analytic memo that was sent to each interviewee for comment. Following Harry Judge's suggestion, we also spoke to Chris Davies, who was first seconded to OUDES from a local school in 1979 before becoming a member of the academic staff in September 1985 and also asked him to respond to the memo. We received comments from all respondents and these comments led us to rewrite the description of the change processes, having verified the accounts of key events and activities.

Finally, in both our data generation and analysis we took account of our positionality. Although we have both worked at OUDES in our careers, we did not work there during the period we studied. Nonetheless, we recognise that access to the key protagonists may have been easier given our association. We adopted two approaches to maintain reflexivity in analysis. First, we checked both the accuracy of the transcriptions and the interpretations we had made in relation to how other interviewees had perceived the same events. Secondly, as indicated above, we checked our interpretations with each of the respondents and made adjustments in response. In approaching and interviewing our research participants, we tried to work patiently and sensitively relative to their personal situations.

4. INTERNSHIP: THE EMERGENCE OF A NEW IDEA

This section provides a response to our first research question in the form of a narratively periodized account of the emergence of internship as an idea between 1973 and 1987. In organizing this account, we have focused on what we identify as different periods of activity as movements within OUDES and outside it. As such, we intend this periodization to be indicative of cultural shifts rather than marking strictly temporal stages of individuals' actions or achievements. The account provided in this section prepares the ground for the theoretical analysis in the next section where we provide a conceptualization of these changes processes as an instance of a collectively creative innovation.

4.1 1973 – 1974: 'A peaceful, gentlemanly sort of interest in education'

Harry Judge and Peter Benton joined OUDES in September 1973. Harry had been headteacher of Banbury School, a very large comprehensive in the north of the county, and had been appointed as Director of the department.¹ Peter Benton arrived from a grammar school in Hertfordshire, where he had been Head of English, to take up a post as English Tutor. Both Harry and Peter were critical of the way teacher education had been done up until that point. Harry, as a member of the James Committee (1972) and also someone aware of developments in the field internationally, joined the department with an interest in both developing teacher education and educational research. Peter joined with an interest in changing the way teachers were being prepared, feeling strongly that his own preparation in the early 1960s was inadequate. Harry and Peter therefore joined OUDES with pre-existing orientations towards change.

The organisation they joined was very different to the department it was eventually to become. Peter described his new colleagues as having a 'peaceful, gentlemanly sort of interest in education, in a sort of . . . somewhat “above it all” kind of way'. Most lecturers did not visit schools and, indeed, expressed a wish not to. Student teachers were offered a lecture programme focused on the philosophy, sociology and psychology of education. After the first week, according to Peter, most students did not attend these lectures, reminiscent of his own PGCE. Students passed the course if they read a few books on the subjects and wrote acceptable answers to questions set for examination. During the middle term the students went to a school to teach, most of which were in the independent sector, including Eton and Cheltenham Ladies College; some in the Channel Islands; and one in Geneva.

At the end of his first academic year, in June 1974, Harry organised a colloquium at Talbot Lodge (university residential accommodation for women at the time) to discuss some initial proposals for developments in OUDES. He also produced a document, related to the colloquium, entitled 'Educational Studies at Oxford – Some Proposals' in which he addressed the issues of PGCE, research culture and postgraduate provision. Peter recalls that a minority of staff present at the colloquium were supportive of change. Peter, as a supporter of the proposals, in later interactions with more established colleagues, felt criticised for 'not playing the game'.

4.2 1974 – 1980: Building conversations about teacher education and research

The period from June 1974 saw multiple and intersecting types of activities occurring (e.g. working parties; written memoranda in the genre of what might be called 'think-pieces') as well as retirements and new appointments to the staff that extended network ties and enabled conversations to be practically translated into concrete proposals. Documents were widely disseminated in mimeographed form within and beyond the department. During this time, Peter recalls Harry's efforts at understanding the interpersonal dynamics and intellectual commitments of his colleagues, forging new alliances inside and, importantly, outside OUDES, and integrating potential developments of the PGCE with the development of educational research.

In November 1975, Harry circulated 'A Working Paper for the PGCE', drawing on the deliberations of various working groups. The paper emphasised the increasing importance attached to what would become known as partnership: 'What we do must depend on how we understand our relationships with the Associated Schools' (Judge 1975, p. 2). Also, in 1975, Harry established the Oxford Educational Research Group (OERG) with the 'May Day Memorandum' of 1977, elaborating the founding principles of this group as:

- Educational research, within the context of a University, should involve scholars from many different disciplines.
- Such research has been weakened in the past by a failure to involve teachers in the schools, and those concerned with the formulation and application of educational policy.
- Oxford University and the County of Oxfordshire provide a particularly appropriate setting for the development of a research partnership, which would concentrate (although not exclusively) upon the study of general themes within the local context. (Judge 1975, p. 1)

The May Day Memorandum brought together the two focuses on professional education (the PGCE) and research that were becoming defining features of the developments inside and outside OUDES.

Indeed, among the 63 people consulted in the drafting of the memorandum and attending meetings were 16 local teachers, 4 officers of the local education authority (LEA, or school district), 2 Her Majesty's Inspectors of Schools, OUDES staff as well as senior academics from across the university. A.H. Halsey, Rom Harré and Mary Warnock were among the latter category; Jerome Bruner, then Watts Professor of Psychology, became the chair of the OERG.

Later that year, Harry established what was to become a pivotally important working group - the PGCE review group - and asked J.J. (Jeff) Thompson (later a professor at Bath University) to chair it. Its purpose was to review both the teaching practice and the university programme, to explore (as Jeff put it) how the 'ologies' and 'isms' might connect to experience in school. At this time, Jeff and other tutors were engaged in collaborative

research with science teachers in Oxfordshire secondary schools under the auspices of the 'Science Centre'. Jeff described the effect of this newly-created centre as 'a very cementing thing' in the way it brought school teachers and university tutors together on curriculum matters. Teachers, tutors and the Science Centre had strong links with national bodies such as the Royal Society. As Jeff described the various activities in OUDES at the time as:

... a multi-layer, like an onion, none of which was pointing in the same direction but was supportive of a movement, a sort of feeling going on.

The PGCE review group reported in November 1978 with 'Proposals for the Development of the PGCE Course'. Jeff reflects that while he was pleased that 'some people came quite a long way' in supporting these proposals (especially about school experience), he felt 'some disappointment' that he 'had not been able to shift some of the more conservative elements in the department in terms of the programme within the department.' Nevertheless, the review group's report achieved enough momentum within the department for the change processes underway to gain further energy.

Three papers Harry wrote in 1979 brought some of the emerging key concerns together: 'Teaching and Professionalism: An Essay in Ambiguity'; 'the 'All Saints Day' paper; and 'The Future of the Department of Educational Studies'. 'Teaching and Professionalism', a draft of a chapter for 1980's World Yearbook of Education, sought to define the professionalism that teachers might claim and the contribution that a research active university department of education might make to developing that professionalism. This theme was picked up in the two other papers that suggested possible new models for OUDES, structurally and in terms of aims and purposes. In the 'All Saints Day' paper, he condensed the direction as follows:

I believe

- (a) we should try
- (b) a smaller PGCE would be a better one
- (c) a smaller Department need not be a worse one
- (d) we should do other things as well (Judge, 1979, p.2)

'Doing other things' included increasing the number of master's and doctoral students as well as attracting research grants.

Crucial to building these conversations about teacher education and research was the relationship between Harry and Tim Brighouse, the Chief Education Officer for Oxfordshire from 1978 to 1989. Tim had been a PGCE student at Oxford and understood the challenges of teacher training at OUDES at that time first hand. He recalls undertaking teaching practice and his visiting tutor taking him out for a Chinese lunch following a lesson observation where they good-naturedly but perhaps (from Tim's perspective) rather pointlessly debated the grade the tutor was going to award him:

He [the tutor] said 'I would have like to have really given you an Alpha ...' I said 'Well it doesn't matter, an Alpha Minus will do me' ... and I thought this is just a lot of ...
[laughter]

Tim had worked with Harry in the county before Harry's appointment to the university, describing Harry as an 'almost legendary figure'. The relationship between OUDES and the LEA was to become vitally important going into the 1980s and Harry and Tim worked closely on generating support for new ideas about teacher education with the headteachers in the Oxfordshire Secondary Head Teachers Association (OSHTA). Harry and Tim had soon co-authored an untitled paper (known as 'The Cherwell School Proposal') that proposed regarding the appointment of a new headteacher at a local school as the starting point for stronger links between the schools, the LEA and the university through the creation of a joint Centre for Educational Development to run alongside the OERG (Judge & Brighouse, 1980).

During this period, Harry continued to maintain his awareness of developments elsewhere in the UK and internationally through a study tour to the United States, funded by the Ford Foundation, to visit successful Schools of Education in research universities. The tour later resulted in the book *American Graduate Schools of Education* (Judge, 1982) that had impact on both sides of the Atlantic. After 1978, according to Peter, Harry showed interest in changes to the PGCEs taking place at Sussex University and Leicester University. During this period of change, the staff of OUDES included David Hargreaves (formerly of the Inner London Education Authority and later Cambridge), Andy Hargreaves (later a professor at

Boston College) and Chris Woodhead (Her Majesty's Chief Inspector of Schools from 1994 - 2000); the documents show they were all actively involved in the change process.

According to Peter, OUDES staff saw Jerome Bruner as actively supporting Harry's twin-track approach to developing teacher education and educational research. It was during this period that the conversation moved outside the department, into schools and the local authority, and subsequently learning from international dialogues.

4.3 1980 – 1984: 'The impetus came from people who were teachers in the classroom'

Closer relationships with local schools had already developed by 1982 with the department offering a Special Diploma and an expanded Master's degree for teachers bringing them into working with a wider group of OUDES tutors. At the same time, the LEA was using a budgetary mechanism known as the 'uncapped pool' to fund secondments for Oxfordshire teachers to study for this diploma and other courses. Teachers studying for these qualifications often undertook action research projects that tried out aspects of what was to become the design of the OIS. Pendry (1990) describes a number of these action research projects: studies investigating 'the mentor's role'; another "examining the problems and possibilities in supervising and collaborating with a pair of interns"; and four specifically focused on curriculum subjects (p. 44).

Peter talked about the benefits this scheme offered to teachers specifically.:

You say to the schools this is a chance for your people to come in to the university to do some thinking about their job, and to come back into the school and to develop their colleagues – 'this is very very positive – everybody benefits, nobody loses' – was the line.

Several teachers who took advantage of this scheme later became members of OUDES academic staff or senior teachers in Oxfordshire secondary schools responsible for professional development. Schoolteachers had contributed to the PGCE prior to 1980 but not on such a structured and systematic basis, with the cross-fertilisation of both school and university settings now a planned outcome, with a new understanding of research in relation to professional practice at its core. Therefore, teachers in Oxfordshire, through the small-scale science pilots and the wider scale secondments for Diploma and Master's

courses, were developing increasingly strong relationships, rooted in emerging forms of educational research, with OUDES.

These new relationships between schools and the department were also facilitated by joint appointments of local teachers – to teach in a school and in the department. A key appointment in this regard was Anna Pendry, a history teacher at Cherwell School, who was jointly appointed as an Assistant Tutor in 1982 and later became a full-time lecturer. Anna recalled large numbers of local teachers around the department at this time and remembers them laughing at the 'squabbling' of the academic staff, some still disagreeing not only about the details but resisting the direction of the changes on the basis of, to her recollection, "if it ain't broke, don't fix it". Tim refers to Anna as 'central' to the development of internship and Anna's name appears on several of the documents from 1982, when she joined OUDES, to 1987 which saw the first iteration of the Internship Scheme. Anna herself recalls several other school-based colleagues taking part in working group activities and she along with other teacher colleagues feeling that they were regarded as 'mere teachers' by some members of the department that she described as 'the old guard'. Nonetheless, these activities led to the formation of proposals by the PGCE Working Party in 1982 (a document known as the 'Green Paper') outlining a sequence of lectures to be known as the 'General Programme' but which also established the main focus of the PGCE as subject teaching in the 'Curriculum Programme'.

Although there was not universal agreement about every aspect of the proposals for change in the 'Green Paper' – and indeed some resistance - documents show that colleagues were actively engaged in discussions and circulating mimeographed position papers on a variety of key questions. Two papers by Andy Hargreaves, for example, undated but likely to be from May/June 1982, make specific proposals in response to the 'Green Paper' with the second paper also responding to discussions that took place after a June 9th staff meeting (Hargreaves, 1982a, 1982b). Hargreaves' concern was the balance between the time interns spent on the curriculum programme and the general programme and also the modes of teaching and assessment on the general programme. In his first paper, he suggested that a risk associated with the 'Green Paper' proposals was that they would entrench interns' preconceptions that 'educational theory has nothing useful to say to them' (Hargreaves,

1982a, p. 4). The balance between curriculum subjects and wider educational theory (often described as 'non-curriculum work') was to become a returning theme in the development of the OIS.

4.4 1984 – 1987: 'A point in the 1980s where things seemed to crystallise'

Peter and Anna both remember the early to mid-1980s as a time when ideas began to coalesce and a new discourse started to emerge. Following another colloquium in October 1984, Harry held a feasibility meeting with Oxfordshire headteachers in November. It is around this time that the word 'internship' begins to be used, something that Tim thought had been derived from Harry's visits to the US and his knowledge of professional education and, in particular, medical education there. However, as Harry confirmed, he derived the meaning of 'internship' from an experiment in teacher education for community colleges in the US that the Ford Foundation had funded in the 1960s (Midwest Technical Education Center, 1967).

A second colloquium took place in January 1985 at which the concept of internship was formally introduced. The papers for this colloquium included detailed proposals for restructuring the PGCE course on an internship model based on a close partnership with twelve schools and included an appendix that summarised the design philosophy of the PGCE course at Sussex University. This was followed by 'Teachers and Professional Development: A New Model', in June, written by Harry, which was addressed to teachers in Oxfordshire secondary schools, the LEA and tutors in the department. Key features of the model were explained: the critical mass of 12 interns, in curriculum subject pairs, working in 12 schools for the vast majority of the school year; key phrases in use at the time - such as 'block practice' and 'teaching practice visits by tutors' - were to be fundamentally redefined or made redundant. The paper concluded with a timetable for implementation that proposed September 1987 for the first iteration of the OIS. A more technical 'Commissioning Paper' appeared in 1986 with Peter and Anna's names as authors although Chris Davies suggests that Donald McIntyre may have been a significant (but unacknowledged) influence on this document.

Donald McIntyre had taken up the post of Reader in the department in 1986, coming from the University of Stirling. Peter suggested that the emerging phenomenon of an internship scheme was an attraction in him taking the job given his already established track record of research with teachers. Indeed, Chris noted that Harry had shown he was aware of McIntyre's work since the late 1970s with one publication, in particular - 'The contribution of research to quality in teacher education' (McIntyre, 1980) – figuring in discussions about the emerging scheme. Over the next twenty years, Donald McIntyre went on to make a seminal contribution to research in teacher education, often with Hazel Hagger, who was later to become director of the OIS (e.g. Hagger & McIntyre, 2006). From this period onwards, the complementarity of the intellectual contributions of Judge and McIntyre becomes apparent.

5. DISCUSSION: MOTIVE, OPPORTUNITY AND MEANS FOR COLLECTIVE CREATIVITY

The previous section provided an account of the development of the OIS and showed how, as a process of change, it was not the outcome of any one individual's creative actions. Rather, we indicated how several processes were in play between 1973 and 1987, processes that arose out of a novel coincidence of environmental factors (including, in the background, a reform-oriented national policy context) combined with the agentic action of many individuals across different organisations (minimally, OUDES, the schools and the local authority) based on an emerging shared sense of a need to change. In this section, we focus on these processes insofar as they relate to three, inter-related goals of these different organisations' growing collaboration and learning: how to do ITE better by engaging more deeply with the practice of teaching; how a university department of education might enhance teacher professionalism; and the importance of research in the purpose of a university department of education. These three goals were formed very early on in the development of the OIS and were clearly associated with the leadership of the new director, Harry Judge and others, as well as new partners and collaborators within and outside Oxford University. However, what became clear in the accounts of the OIS's development was that these goals from the early 1970s did not 'crystallise' into conceptual tools for change that could be named until much later on.

In this section, we analyse these continuous processes of change and respond to our second research question by conceptualizing the development of the OIS as a case of collective creativity. In doing so, we draw on Nooteboom's (2000) cultural-historical and socio-cognitive analyses of learning and innovation in organisations. In particular, we use his 'heuristic of discovery' and the understanding that the exploration, creation and exploitation of new ideas cannot be explained purely on the basis of "rational choice among alternative options" (p. 170). Rather, an analysis of radical innovations such as the OIS should focus on the "elements of discovery: motive, opportunity, and means" (p. 179) that might be regarded as conditions that both stimulate and are stimulated by collectively creative encounters.

5.1 Innovation as continuous processes of development: The elements of discovery

5.1.1 Motive: Feeling the need to change

The initial steps towards the three goals leading change within OUDES in 1973 were a response to a felt need to change, a 'need state' (Bratus and Lishin, 1983) in which critical reflections on their own experience led to an emotional commitment to change for key protagonists such as Harry Judge and Tim Brighthouse, a feeling that was more or less shared, progressively, over the following years. The emotions represented in the interviews included frustration, even irritation at the perceived irrelevance of some aspects of the dominant design for ITE (lectures students didn't attend and examinations they could pass by 'reading a few books').

These frustrations might be described as an 'only partly conscious grasp of an emerging contradiction' (Miettinen, 2014, p. 6) in the activity system of the PGCE at this stage (one focused on the primary contradiction between the exchange value of lectures and written examinations and the use value of school-based practice, for example), but as this need state was experienced more widely, it became a more conscious awareness of the limitations of current practice as conversations grew from 1974 - 1980. Over time, and contextualized within a variety of other means and contexts, these conversations produced

something that Fogel (1993), in studies of how collaboration between individuals is mediated through social relationships, called ‘anticipatory directionality’; that is, within the environment, people started to feel that they were ‘going somewhere’, that ‘change was in the air’, even if the nature of that change and the precise direction wasn't yet clear.

Although the leadership of Judge was crucial in stimulating the social processes (internally and externally) that were creating the conditions for change, the events and actions making up what were to become continuous, intersecting processes over the following years relied on the commitments of a variety of participants across multiple organisations. These emotional commitments were not necessarily identical or experienced at the same level of intensity but were nonetheless subjectively felt before they came to be articulated. The early years of the development of the OIS can therefore be seen as the creation of a collective need state for change. In theoretical terms, any future object of activity, any new idea for ITE would only become an object if it met a genuinely felt need. Equally, the need state would only become a motive (both from a theoretical perspective but also in the sense of simple clarity of direction) when the possible resolutions to the perceived problems of current practice could be envisaged (Miettinen, 2014, p. 6).

However, it is also important to note that the process of creating a collective need state was not merely an initial ‘stage’ in the development of the OIS. As the conversations grew, more people became involved and a sense of direction started to emerge (among schools and the LEA, for example), producing a situation in which people felt the need to change continued to be important. For this reason, we regard the creation of a need state that expanded socially beyond initial, individual and personal concerns as one of the *continuous* processes of change rather than only the first stage in development.

5.1.2 Opportunity: Recognising and responding to new affordances in the environment

In the course of elaborating the elements of discovery within an overall heuristic, Nooteboom (2000) notes that “in the literature [on innovation] *opportunity* has received

less attention” (p. 236). As he points out, opportunity is in part contextual and, while variation in contexts is generally understood to be generative of change from this theoretical perspective, how some environmental circumstances come to be perceived as occasions for change is under-theorised within organisational theory literature. Nonetheless, our account of the development of the OIS illustrates the importance of what could look otherwise like serendipity.

The distributed nature of the activities from 1973 – within OUDES, across the university, and through Oxfordshire schools, headteachers and the LA – meant that the different participants brought their awareness of changing local, regional and national environments (including policies) to the process. Changes to the situation of OUDES within Oxford University, its full incorporation and the awarding of prestigious fellowships to staff for the first time, allowed the department to create a different staffing structure in which research had a higher profile. Outside the department, the appointment of a new headteacher at Cherwell School was used to signal the importance OUDES gave to professional development and research at the same time as increasing its emphasis on research. OUDES also took advantage of retirements of staff over these 14 years to make new appointments, replacing colleagues who may not have been supportive of – or even resisted - the changing direction. Perhaps most significantly, the emergence of the ‘uncapped pool’ as a result of funding changes in local government became a device to second teachers to OUDES and involve them in research and development for little or no cost. Not only did this bring new people and perspectives into OUDES, it was a means by which new academic staff were recruited from a variety of contexts. Structurally, it also meant an increasing number of newcomers were moving from the periphery to the centre of the organisations as communities of practice, creating the conditions for what Lave and Wenger (1991) called the ‘continuity-displacement contradiction’, a key dynamic for change whereby ideas from ‘newcomers’ to a practice are tested and accepted, rejected or modified by more established participants.

Many of these opportunities could not have been anticipated at the outset of development. They were identified in the course of working on the goals OUDES, under the leadership of Harry Judge, had decided to pursue from 1974. The word 'opportunistic' often has pejorative connotations, signalling unprincipled exploitation of beneficial circumstances. The development of the OIS was opportunistic to the extent that the processes set in train were responsive to changes in the environment that were likely to be supportive of the goal-oriented actions of participants in the development processes. From an ecological and interactionist perspective, the affordances within the change environment were actively perceived by the participants in its development (Gibson, 1979; Greeno, 1994). Rather than simply describing these as pre-existing opportunities that were waiting to be picked up by anyone, understanding these opportunities instead as affordances that could be recognised and acted upon by participants in a common endeavour highlights the active agency of the participants and also the distributed nature of this agency as they recognised and responded to these environmental affordances on the basis of an increasingly conscious awareness of the contradictions within current practice. Miettinen (2014) defines distributed agency as "people's active orientation to alternative futures and transformative projects" (p. 113) and, in the case of the development of the OIS, this form of distributed and transformative agency allowed a diverse range of participants from different fields of practice to recognize and respond to the emerging affordances in their changing environments.

5.1.3 Means: The importance of tinkering

The development of the OIS is characterized by several simultaneously occurring, intersecting processes involving the creation of a shared need-state as well as the capacity to recognize and respond to affordances in the changing environment, something we refer to as the exercise of a distributed, transformative agency. Such processes often involved experimentation of a less coordinated kind, testing the boundaries of current practices to expose limitations as well as identifying aspects of current practices that may be re-combined in new configurations. The multiple kinds of actions occurring, as shown above, included the circulation of texts; the convening of formal colloquia as well as working groups; and research projects such as those tried out by the science education tutors

between 1974 to 1980 that brought school teachers and university tutors together to develop the curriculum. These developmental events and actions might be described as a form of collective 'tinkering' (Nooteboom, 2000) that preceded the emergence of the idea of internship itself. Indeed, Nooteboom's discussion of means within his heuristic of discovery suggests that the introduction of new resources, experiences and knowledge from a variety of contexts through new channels of communication and interaction can be understood as *tinkering*, a recognised feature of creativity in science and technology (p. 4). In cultural-historical theory, such collective tinkering might be described as 'imaginative' or 'serious play' (Another & Author 1, 2013) that leads to novel combinations of the available resources.

Jeff Thompson referred to the multitude of activities underway at the time as a 'multi-layer, like an onion', recognizing not only that there was a lot going on but that what was going on was experimental and often divergent, 'none of which' (as he put it) 'was pointing in the same direction but was supportive of a movement'. Discussions were exploratory; circulated written texts were visionary or provocative and often both; the scale of the challenge was emphasized and its significance for the whole of OUDES as an academic department of the university; wider connections within and outside the university demanded that what might have become internal, local considerations became more public deliberations of future possibilities. These processes might be described as 'carnivalisation', a term used by Engeström, Kajama, Lahtinen and Sannino (2015) to suggest the playful breaking down of sedimented routines and scripts for action in anticipation of structural change and a new direction (p. 108). The importance of tinkering as a means for developing the concept of internship is critical: this new idea didn't emerge - nor was the OIS operationalized - either through steady, incremental revisions to the existing design (a linear process of refinement) or through a sudden fracture in an equilibrium and the creative destruction of the old regime by a single creative action (both common alternative theories of institutional and organizational change [Nooteboom, 2000]).

The tinkering that took place from 1973 to 1987 was the means through which an innovation was created collectively. The innovative outcome of this creative process was such that by the time the word 'internship' emerged in the mid-1980s, people (whether from OUDES, schools or the LEA) knew what it signified even though they might not have known where the word came from, an outcome of a phenomenon that Miettinen (2006) has described as 'the extraordinary act' of a need state meeting an object.

6. CONCLUSION: FEELING THE NEED TO CHANGE?

This article has sought to make a contribution to the history of teacher education and how we theorise change in the field by providing an empirical description and analysis of one programme that has been highly influential internationally and by using a cultural-historical approach to theorise innovation as a case of inter- and intra-organisational learning. Our intention has not been to displace one individual with another in accounts of the OIS but to present complex and longitudinal aspects of its development that have previously been subordinated. We set out to address two research questions: 1. How did the idea of a teacher education *internship* emerge within OUDES and across its local network? 2. How might the emergence of this new idea be conceptualized as a process of change?

In response to the first question, we have shown how the idea of a teacher education internship emerged interactively through different types of collaboration within the Oxford department and across its schools and the local authority. These collaborations were enabled through the creation of the conditions (structurally and also relationally) that produced a shared need state as a continuous, underlying process, initially within OUDES and then extended across the collaborating organisations. As a consequence of this need state, the collective activities within and across the different organisations had a future-orientation rather than one dedicated to maintenance of the *status quo*. We have also shown how an outward-looking form of leadership – not based on any one heroic individual but distributed amongst and across the various organisations - sought to address problems of mutual interest both to the teaching profession and the university academics. Our research has also demonstrated the central emphasis given by the key protagonists both to

teacher education and to research in defining the purpose of a university education department and how it might be developed.

Addressing the second question, we have shown how internship as a new idea for the design of an ITE programme was an outcome of interactively emergent processes over a 13 year period – neither a sudden revolution nor an incremental evolution. As an innovation, we have argued that it can be seen as a product of the distributed agency of multiple actors across collaborating organisations, as a form of collective creativity responding to a felt need to change as well as contemporary policy-drivers. This form of collective creativity (as a property of a complex social system rather than any one individual) was enacted through what we have referred to as an array of tinkering - loosely coordinated, playful activities taking place at multiple levels, primarily focused on collaborative research and development between academics and local teachers motivated by an increasingly shared need state. These joint activities also stimulated closer relational ties between larger numbers of individuals in schools and the changing university department that enabled a more structural focus on innovation in ITE.

If this study has lessons for the field now, one might be that there needs to be a renewal or re-energising of a sense of creativity and agency amongst the university-based teacher education community following a long period of highly politicised, strongly interventionist reforms and ever-increasing demands for accountability. Whilst recognising the anxiety and institutional risks presented by volatile policy environments and high-stakes accountability systems, we are reminded both that the period we have been discussing was also characterised by significant policy change and pressures from political conservatism but also that many scholars have long noted ‘timidity’ and ‘lack of vision’ (Berliner, 1984) within the field generally. In other words, our research suggests the importance of a transformative, agentic approach rather than a defensive one and an implication of our research is that teacher education as a field today may also adopt such a transformative stance by engaging and supporting extended networks of stakeholders across the profession (in schools), across universities (not only in Education) and with and for communities (Philip et al., 2018).

Another possible lesson might be that the field is in need of a similar vision for the central importance of teacher education in the purpose of university Education departments – not for sentimental or anachronistic reasons but for the synergies that accrue through the co-development of research agendas with professional and other stakeholders. Given the emphasis our research has given to the creation of a need for change, it is also important to note that in the case of the OIS, an important part of the building the need state was persuading teachers that research needed to be at the heart of professional preparation – not merely as findings to be delivered to end-users but as new knowledge to be co-constructed. Teaching, for a variety of reasons, is now a much more research-informed profession than it was more than 40 years ago – not only with teachers as consumers of research but producers too. The challenge, we believe, is how universities can now engage the profession on different terms, recognising the changes to all partners' expertise. Our own view is that, at present, most university teacher education programmes, certainly in England, have not yet recognised the need to engage with the profession about educational research on different terms to thirty years ago,

However, if there is one, simple message from the emergence of the idea of a teacher education internship in Oxford between 1973 and 1987, it may be that universities will need *to feel the need to change* for innovation to happen and for them to persuade anyone that they still have an important role to play in professional preparation. Currently, the need to change teacher education is often most keenly felt outside universities, especially within the new kinds of school networks that have grown up during recent educational reforms (e.g. charter schools in the US and academies in England). Often, universities have been seen to take a defensive stance in response to these new movements (Author 1 & another, 2015; Zeichner, Payne & Brayko, 2015). How can universities instead take a transformative stance, to be able to feel the need for change, and to seek out new kinds of collaborations across networks of stakeholders that produce innovations of the significance we have seen in the past? We believe that by documenting and analysing historical innovations in teacher education, it will be more likely that universities can adopt such a necessary, transformative stance.

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NOTE

¹ In answer to our question about why the University of Oxford appointed the headteacher of a local comprehensive school to become Director of OUDES, Harry Judge suggested that, as OUDES wasn't then a full department of the university, it wasn't seen as essential to appoint an academic and that, as an Oxford graduate with a PhD, he was regarded as suitable.