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ESTUDIOS Y ENSAYOS

Preparing teachers for creative engagement with educational change: an appreciation of the work of Ángel Pérez Gómez and his Associate Researchers at the University of Malaga

Preparar a los profesores para un compromiso creativo con el cambio educativo: una apreciación del trabajo de Ángel Pérez Gómez y sus investigadores colaboradores en la Universidad de Málaga

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RESUMEN

Este artículo pretende explicar (y valorar) el trabajo de Ángel Pérez Gómez y sus asociados sobre la preparación del profesorado para un compromiso creativo con el cambio educativo. Desde una perspectiva personal y profesional, el autor explica el desarrollo y la relación de los trabajos de sus compañeros de profesión y de Ángel y su grupo de investigación. El artículo sitúa la relevancia del trabajo de Ángel Pérez y del grupo de Málaga a nivel nacional e internacional poniéndolo en discusión con otros trabajos relevantes sobre el mismo tema y con su propia perspectiva.

Palabras clave: cambio educativo; lesson study; teorización de la práctica; experimentación de la teoría

ABSTRACT

This article aims to explain (and appreciate) the work of Ángel Pérez Gómez and his associates to prepare teachers for creative engagement with educational change. From a personal and professional perspective, the author explains the development and the relationship of Angel and his associate researchers' and his and his peers' works. The paper situates the relevance of Angel Perez and the Malaga group's work at a national and international level by bringing it into discussion with other relevant works on the same topic and with his own perspective.

Keywords: educational change; lesson study; theorization of practice; experimentation of theory

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1. INTRODUCTION

I first met Ángel Pérez Gómez at the first 'free' post-Franco national education conference in Spain. He was one of the organizers of an event that anticipated and embraced significant changes in the Spanish system of education, in the wake of a change of regime to a more democratic form of government. The event took place over 40 years ago. I was invited in the place of Lawrence Stenhouse, Director of the Centre for Applied Research in Education (CARE) at UEA, who had been invited to talk about significant curriculum changes underway in the UK. Stenhouse by this time was too ill to attend and had asked me, a member of his CARE team, to take his place. He died in 1982, having made 'his mark' nationally in the UK with his work on the Humanities Curriculum Project (HCP); a controversial issues curriculum for young school leavers (14-16 years) of average and below average academic ability.

The HCP was nationally funded in the light of a planned increase in the Raising of the School Leaving Age in 1970 from 15 to 16 years. This was in a context where research had shown large scale disaffection from learning within the humanities subjects-literature, history, geography, and religion –on the part of students judged to be of average and below average academic ability. I had been appointed to the HCP central team by virtue of my experience as a teacher in a state secondary school, where I had helped to design an innovatory humanities curriculum to overcome the 'disaffection problem'. After his death, Stenhouse, because of his creative work in the field of curriculum design and development, was described in *The Times Educational Supplement* as 'a chess player in a world of draughts'. HCP and the curriculum problem, that was designed to address, had provided a context in which Stenhouse with his project team created a scenario for curriculum change that went well beyond the bounds of the project itself. It was generalizable to other curriculum fields and stages of education. At the core of this change scenario were three major interconnected ideas that can be viewed as a general theory of educational change and the role of teachers within it (Stenhouse, 1975). These were:

1. That the main aim of education is best conceived as the speculative development of human understanding.
2. That 'the development of understanding' is a process that has no fixed endpoints in the form of measurable objectives but has both inherent standards and criteria against which its quality as a learning process can be judged. These imply *principles of procedure* governing the role of the teacher as a facilitator of such learning. Stenhouse called a curriculum planned in this light *The Process Model*, in contrast to the rapidly emerging *Objectives Model*. He argued that the latter distorted the nature of knowledge-content as an object of speculative thinking.
3. That the judgements of teachers as facilitators of an educationally worthwhile process of learning should be disciplined by their own collaborative and iterative cycles of reflection and action, which became known as 'action research'. Stenhouse (1975, p. 157) argued that such collaborative research presupposed a common vocabulary of concepts and a syntax of theory to enable teachers to communicate with each other about their work. Such a conceptual/theoretical framework may exist in advance of such research but should be adopted experimentally and further developed in the light of experience.

Barry MacDonald, another member of Stenhouse's team at UEA, had also been invited to contribute to the Spanish conference by Perez Gomez and his colleagues. MacDonald had designed a non-psychometric programme evaluation of HCP, based on qualitative case studies that depicted the different ways the project 'shaped up' action contexts. The invitation of both Stenhouse and MacDonald to contribute their ideas about curriculum development and evaluation clearly indicated the intention of the conference organizers; namely, to foster the development of a radical and innovative curriculum change scenario for the new democratic social order in Spain. It was one that gave 'teachers as researchers' a central role as initiators of curriculum change at the level of classroom practice.

Following the post-Franco conference, the CARE group at UEA and Ángel Pérez Gómez and his associates at Malaga University maintained exchanges of their work for over three decades. MacDonald's work on developing case study approaches to the study of 'innovations' in education is reflected in the extensive use of case study methods in the Malaga group's own research projects. I responded to a growing interest in the theory and practice of teacher research in Malaga, and Spain more generally, by leading in-service workshops for serving teachers and teacher educators. I was assisted by teachers and colleagues I had worked with in various action research projects in England.

During the 80's teachers in Spain were encouraged to innovate in the curriculum field; to make the content of education more relevant to their lives in contemporary society. To this end local educational centers emerged in some areas with a brief to support curriculum development in schools by supplying high quality teaching materials and advice on their use. However, university-based teacher educators and researchers in Spain observed that, despite new content and instructional materials, there was little educationally significant pedagogical change in the way teachers linked their students to such content and materials.

It was a similar situation in the earlier school-based curriculum reform movement in the UK. One major exception was Stenhouse's Humanities Project (Stenhouse, 1968, 1969, 1971). At least in its pilot school's teachers generally managed to change their pedagogy in ways that were consistent with the project's aim. This was because the project engaged participating teachers in a process of collaborative action research, which asked them to consciously examine evidence about their 'action patterns' in the light of the project's espoused aim and pedagogical principles. These teachers became an elite group of reflective practitioners who worked collaboratively with each other and a strong central team to case study their teaching and generate action-hypotheses about how other teachers working with the project's materials might reflectively transform their interactions with students to make them more consistent with the aim and principles of the project. Their elite status may simply have rested on the fact that teachers generally tend not to be socialized into their profession as Reflective Practitioners. This would explain why many teachers fail to engage with the action research findings produced by their peers. The utilization and testing of action-hypotheses presupposes the formation of wider communities of 'teacher researchers' who share similar change agendas.

In 1990 Ángel Pérez Gómez assisted me in assembling a collection of my papers on the theory and practice of educational action research, which was translated and published in Spain by Morata, with an introductory chapter by himself. The book was entitled *La Investigación-acción*

en educación. Its publication preceded my first and best-known English book on the theory and practice of educational action research. It was entitled *Action Research for Educational Change* and published by The Open University Press in 1991, a year after the publication of the collection of my papers in Spain. In the book I attempt to map out and illustrate the critical features of an educationally worthwhile process of curriculum change (see, for example, pp. 49-56). Such a process I argued will be guided by a cluster of inter-related ideas about the nature of education, knowledge, learning, curriculum, and teaching. Moreover, I claimed that these ideas do not simply become articulated and clarified *a priori* in advance of action to bring about change. They do so within the process of effecting change-in-itself. I was claiming that worthwhile curriculum change is informed by an educational theory that cannot be developed independently of action to bring it about. In other words, conceptions of 'ends" in education cannot be developed independently of decisions about means. This is the task of action research I argued. Therefore, such research is best regarded as *practical philosophy*, which involves a mode of *practical thinking* that is best characterized as that deliberative activity of the mind which Aristotle called *phronesis* in contrast to the instrumental means-ends mode of thinking he called *techne*.

My own academic career can be viewed as leading a series of action research projects aimed at helping potentially innovative teachers to narrow the gap between their *espoused theories* and their *theories-in-use* (Argyris, 1993), and to publish their findings in the form of action strategies for other teachers to experimentally test and refine in the laboratory of their own classroom. I largely worked with teachers and schools who believed they were well-disposed to curriculum and pedagogical change and motivated to change their behavior when evidence indicated that it was inconsistent with the pedagogical aims and values they espoused. However, when confronted with evidence teachers often found it diffcult to change their action-patterns to make them more consistent with the pedagogical process they espoused; patterns shaped by tacit attitudes and beliefs that are acquired and reinforced in the process of professional socialization. Such changes will take time and a great deal of reflective experimentation with new patterns of behaviors.

But what about teachers who just teach and are not disposed to changing the relationship between curriculum content, their students and themselves? How can they develop as reflective practitoners? I have spent little time thinking about this problem. Angel Perez and the Malaga group on the other hand have increasingly focused their research on identifying and cultivating those dispositions necessary for a teacher to develop as a curriculum and pedagogical change agent in the classroom.

In 2000 Perez Gomez published a research report in a book I edited with Herbert Altrichter, entitled *Images of Change (*Altrichter & Elliott, 2000*)*. It reported the findings he distilled from case studies of the practices of eight student teachers from eight universities in Andalusia, Spain (Perez Gomez, 2000, pp. 125-135). The research focused on the development of their practical knowledge and behavior over the 4-month school-based practicum (which followed on from 3 years of academic teacher training in a university) and the main factors that shaped these processes. It involved detailed observation and interviews with the student teachers and their school mentor and university supervisor.

Perez Gomez concluded that the socialization process produces dominant forms of teaching behavior and styles that "inhibit alteration of the teacher preparation process in the direction

of a more reflective learning process." He found that the following inhibiting factors emerged as the most influential and persistent in all the cases studied.

1. *The School Culture.*

   The trainee teacher experiences pressures to adapt to the traditional rules that shape relationships and roles within the classroom and the organization in general. Their effect is to "reinforce the tendency towards an imitation and reproduction of the status quo, [...]"

2. *Dependency and Insecurity of the trainee.*

   The trainee experiences a complex social environment in the classroom, which given their provisional position makes them feel insecure and dependent on their mentor and other experienced teachers. The way out of the situation for the trainee is "to imitate and reproduce the behaviors he or she observes in the tutor's teaching style." Perez Gomez pointed out that this state of insecurity and dependency encourages the trainee "to overcompensate in terms of authority."

3. *Lack of theoretical and practical alternatives.*

   The trainee imitates the teacher not simply because of the pressure on him or her to adapt, but also because they lack any appreciation of *reflectively appropriated* alternative theories/methods of teaching. Such alternatives, Perez Gomez claimed, are not only not on offer within the school-based practicum but also within the academic programme that preceded it. He argued that the theory inculcated at the later phase is "generally too far removed, in terms of time and interest, to be used [...] as a store of useful knowledge and experience with which to understand current reality and make on-the-spot decisions."

4. *The socializing function of the school-based tutor (mentor) and the bureaucratic function of the university supervisor.*

   Perez Gomez claimed that the evidence from the case studies suggested that the relationships between the trainee and school-based tutor did not focus on educational content. This, he claimed, would have consisted of a focus on the "significant, powerful socializing influence of the school culture to which the tutor belonged" in which the tutor "systematically develops and performs a role of reflective mediation, stimulating student-teachers to analyze and compare the influences and tendencies to which they are exposed, and which shape their teaching activity." An educational relationship between trainee and tutor in the practicum would be one in which the tutor reflectively mediates the school culture to the trainee and thereby inducts her into the role of a reflective practitioner. In this context Perez Gomez argued that the role of the university supervisor should be one of offsetting "the powerful socializing influence of the school environment" on the trainee's experience by offering "opportunities and conceptual instruments for analyzing the educational value of practical work". Instead, the role of the university supervisor in each case "was restricted merely to checking and recording the fulfillment of bureaucratic requirements of the practical programme for the purposes of final assessment."

In his report Perez Gomez cited a paper by Barry MacDonald, delivered in 1984 at a symposium in Madrid on the Theory and Practice of Teacher Education. The title of the paper is 'Tea-

cher education and curriculum reform: some English errors'. It is a critique by a Scot of the importance attributed to school experience in the English pre-service teacher training programmes. He had argued that periods of attachments to schools in advance of full entry into the profession were accompanied by particularly rapid and intense immersions into school cultures that were only weakly mediated by staff from the training colleges. Moreover, he argued such immersion amounted to a process of professional socialization into obsolete practices within a changing world. A few years later Perez Gomez and his associates extended MacDonald's thesis to pre-service teacher education in Spain. However, MacDonald's proposal to rectify the situation was a very radical one. He argued that the best way to begin preparing teachers to teach in schools was to keep them out of schools; on the grounds that school cultures are underpinned by a "fear of children" and that this shaped the practice of teaching as managing the behavior of fearful objects. Therefore, MacDonald concluded that pre-service teacher education should begin with trainees being equipped to systematically observe children behaving in a variety of everyday life situations beyond the world of the school. By analyzing and discussing observational evidence about children's behavior in everyday life MacDonald believed they would learn to avoid treating children as fearful objects in their classroom, and in the process reflectively critique the beliefs, attitudes, values, and technical knowledge that are tacitly embedded in many school cultures.

Perez Gomez would be aware of MacDonald's radical proposals at the time of writing his report, but he, with his research group, clearly intended to proceed with the task of re-conceptualizing the design of the practicum in pre-service teacher education. He argued that it "must change and in doing so end the dissociation between theory and practice evident in programmes of teacher education" This would require a practicum that shaped up as an interactive process of professional learning, which "linked reflection on the personal theories that underpin teachers' everyday interpretations to relevant theoretical knowledge in the public domain" (p. 134). Perez Gomez and his Malaga associates increasingly focused their research on understanding the psychological factors that shape the way teachers "perceive, interpret, make decisions and act in the complex world of classroom interactions" (Soto Gomez, Servan Nuñez, Perez Gomez and Peña Trapero, 2015). They were interested in knowing the psychological conditions that both enabled teachers to reflectively link theory and practice and prevented them from doing so. Such knowledge would provide a basis for designing a teacher education practicum that would overcome the duality between theory and practice, which they termed 'the Cartesian Error', and enable teachers' research to become the hallmark at the core of all teachers' professional development and not simply an activity for a professional elite.

The work of Ángel Pérez Gómez and his Malaga associates extended Stenhouse's idea of the 'teacher as researcher' by adding an important psychological dimension. Their starting point was Donald Schon's *The Reflective Practitioner* (1998). Given the historical and personal context of my association with Ángel Pérez Gómez and his associates at the University of Malaga, the rest of this paper takes the form of a conversation I am having with this important psychological dimension of their work, as it has been reported in English language journal articles.

2. CONCEPTUALIZING THE RECONSTRUCTION OF TEACHERS' PRACTICAL KNOWLEDGE

Schon's case studies of teachers had demonstrated the existence of two minds: a rational, reflective and conscious mind and "a methodological and automatic mind" operating below the level of consciousness (Peña Trapero & Perez Gomez, 2017). It formed the basis of Schon's well known distinctions between *reflection in* and *on action* and *knowledge in action.* And a framework for subsequent reviews of research, by the Malaga group, into the relationship between mind and action. They concluded that all of it highlighted a gap between two areas of knowledge: "—the knowledge we gather in our interactions with the world of ideas and the knowledge we use to act effectively in a specific situation" (Peña Trapero & Perez Gomez, 2017).

The former they contend is often limited to rationalizing *a posteriori beliefs* which stem from the implicit mind rather than directly informing action. The research of Schon and others in an emerging *psychology of action* provided a theoretical context for forging a conceptual bridge between educational theory and practice. Perez Gomez et al. built a shared conceptual framework around a distinction between *practical thinking* and *practical knowledge "[...]* to clarify the meaning, distinctions, limits and interactions of two often confused concepts [...]" (Peña Trapero & Perez Gomez 2017). In doing so they form a concept of practical thinking that in terms of meaning differs significantly from the concept of instrumental thinking that is currently enshrined in the dominant *objectives model* of how to improve classroom practice in educational systems. It is very similar to a model of practical thinking that Aristotle called *phronesis* as distinct from *techne,* and which plays a central role in doing educational action research when it is viewed as a form of *practical philosophy* (Elliott, 2006). Perez Gomez et al., however, view practical thinking as a process that *theorizes practice* whereas Aristotle makes a distinction between *phronesis* and *theoria.* For Aristotle, theoretical reason involves the discernment of universally valid truths that are essential and unchanging and valued for their own sake (*episteme).* In contrast *phronesis* for Aristotle involves reflecting about practical situations to deepen *situational understanding.* I have claimed that following the post-modern critique of essentialist epistemologies and in the light of a pragmatist theory of knowledge, as developed by Dewey and Rorty, it makes sense to recontextualize the use of the term 'theory' to depict scenarios for improving human activity in particular contexts of action (Elliott, 2007, pp. 28-38). This is exactly what Stenhouse (1979) did. From his point of view, I have argued, "a theory of education is an articulation of teachers' shared practical understanding of how to make their practice in classrooms more *educational* through concrete and situated action" (Elliott, 2009, p.31).

Perez Gomez et al. incorporate Schon's distinctions between *reflecting in* and *on action* into their conception of practical thinking as the *theorization of practice.* They also blend into this process Argyris's (1993) distinction between *espoused theories* and *theories-in-use*; the former being explicit objects of awareness while the latter will inform practice as a structure of belief, knowledge, attitudes, and values operating below the level of consciousness. This process of practical theorizing enables teachers to gather evidence as a basis for reviewing and questioning "the implicit theories, beliefs, values and artefacts which make up and condition their practice" (Soto Gomez, Servan Nuñez & Perez Gomez, 2015). In doing so it becomes possible "to discover the convergences and contradictions between their espoused theories and theories-in-use[...]" and to start "a process of comparison" between their own espoused theories

and those of others "in order to enrich new modes of understanding and interpretation" (Soto Gomez, Servan Nuñez & Perez Gomez1, 2015). It is presumably in this space that teachers can engage, not only with the practical theories of their peers, but also with academically generated theories and ideas about teaching and learning, to assess their practical appropriateness to their situation.

In my view the Malaga group appears to be somewhat ambiguous about whether engaging teachers with academic theories has any significance as an aspect of *practical theorizing*. This stems perhaps from a lingering commitment to dualistic thinking, in which any engagement with 'academic theory' is assumed to involve detaching thought from action. Teacher's practical theorizing, on the other hand, is viewed as the process of developing implicit and personal theories-in-use, consisting of images, maps, and artefacts "which make up their repertoires of professional knowledge and which they put into action in each situation" (Soto Gomez, Servan Nuñez, Perez Gomez & Peña Trapero, 2015). The Malaga group explicitly reverses the traditional understanding of the theory-practice relationship enshrined in university-based teacher education; namely, that good practice depended on a good prior understanding of educational theory. Explicit practical theory, in contrast to 'academic theory', they claim, is derived from the reflective and cooperative analysis of practical experience, which in turn informs the reconstruction of the teachers' implicit and personal theories. However, at times the publications of the Malaga group appear to be open to the possibility that practical theorizing will be enhanced if it is informed by scholarly research. Hence, we find Soto Gomez, Servan Nuñez and Perez Gomez (2015) defining practical theorizing as the reflection of the teacher on his or her own practice, "[...], in the light of more relevant educational experiences and of the results of more consistent educational research." They go on to assert that, in the context of teacher training, practical thinking should be both disciplined and informed. In these terms they may be referring to action research carried out by other teachers. However, later in their paper they provide an example of a theory that is now being widely used to systematically inform and indeed discipline teachers practical thinking; namely, Variation Theory (Marton & Booth, 1997).

Variation theory was developed from Swedish *phenomenographic research* into the ways students experienced the curriculum content they are presented with. Although teachers collaborated with this research, it was led and managed by academic researchers.

Having selected *lesson study informed by variation theory* as a procedural context for case studying university teacher's practical thinking (see below), the Malaga group appears to endorse the *blended version* (LLS) informed by variation theory and known as *Learning Study*. Soto Gomez, Nuñez Servan, and Perez Gomez (2015) write:

> Perhaps the most contribution of Marton's variation theory to LS is to place the focus of ermanen on learning and to provide a technical framework which helps to better understand the conditions in which relevant learning should come about.

1 We are aware that, according to APA7, in-text citations with more than two authors must include the first author followed by "et al." However, we believe that in this particular case it is more convenient to name all the authors, since this is a paper whose aim is to present and appreciate the work of Ángel Pérez Gómez and his associated researchers.

Although a theory developed on the basis of 'academic research', variation theory is not viewed as an object of abstract thinking but as a guide to thinking about the concrete, practical situations that confront teachers in their classrooms. Moreover, it is not viewed as a prescriptive theory that sets out a rigid action plan, which "needs to be strictly adhered to, but rather a description of the principles of procedure (Stenhouse) which the lesson is based on, and which each teacher can adapt in line with his or her specific action context" (Soto Gomez, Servan Nuñez & Perez Gomez, 2015). Interestingly the authors conceptually align variation theory with Stenhouse's *Process Model* and his idea of *the teacher as a researcher,* and in the process conceptualize a type of scholarly theory that conceptually links theory with practical thought. In their case study of LLS Soto Gomez, Servan Nuñez and Perez Gomez articulate this 'new perspective' on the role of academic theory very clearly:

> Having enriched LS with this learning theory, we can understand that the current ermane LLS is also to generate knowledge and theory construction, not within a positivist epistemological tradition which conceives practice as a direct application of theory, regardless of the agents involved, but rather from a position in which knowledge is used as---a hypothetical resource to help understand the particular phenomena which teachers erm in our day-to-day practice.

This chimes with Stenhouse's point about teachers needing a theory to provide a language in which they can talk to each other about their classrooms.

If variation theory can provide a significant theoretical resource to enhance a teacher's collaborative and iterative process of reflecting-on-action, then it is possible that other scholarly theoretical perspectives might play a similar role. The test, as with variation theory, is the extent to which they can be used to connect with and strengthen the development of teachers' implicit practical theories, and in turn throw light on new dimensions of the theory. In which case the theory-practice sequence will not be reversed as the Malaga group maintain. The use of theory as a hypothetical resource for practical thinking surely implies an interactive relationship between theory and practice. Such a use has been recently acknowledged by Perez Gómez (2021) when he insists that

> the ermanen is not in the unquestionable value of the theory, and above all, the theoretical debate, but in where, when and how to place the approach of the apprentices to the theory so that it is more relevant as an essential instrument for the ermanen of the practice itself, design and development of proposals and the assessment of the processes and results, in the development of LS both in the initial and ermanente training of teachers.

Could it not be the case that the action planning process will be considerably enhanced if the teachers involved are engaged in an open and free discussion of 'scholarly theoretical resources', which have been tried and tested as 'practically appropriate' in similar action contexts? Such discussions of explicit educational theories may be experienced by participants in the action planning process as throwing light on their implicit and personal theories and in doing so shape the process significantly. This might explain why the Japanese Lesson Study approach gives a special role in the planning process to *the knowledgeable other;* usually an academic expert who is able to mediate the relationship between the design of the 'research lessons' and possibly

relevant theoretical resources. In doing so 'the expert' would not be an ultimate authority on the practical relevance of any theory they draw attention to in the planning group. This would be settled on the basis of an uncoerced consensus, which emerges as an outcome of a free exchange of views-a reflective conversation-within the planning group. Such an engagement with 'academic educational theory' is consistent with viewing practical theorizing (phronesis) as a democratic process of inquiry.

I have found myself increasingly following in the footsteps of John Dewey and Richard Rorty (e.g. see 1999); a more recent advocate of philosophical pragmatism. Dewey extended what he believed to be characteristic of 'scientific method', beyond the substantive focus of its traditional disciplines of knowledge, to cover all forms of inquiry (Dewey, 1974, pp. 182-192). Dewey thought of scientific method, not so much as a discipline-based methodological procedure, but as a manifestation of certain general attitudes and virtues in all forms of inquiry (including ethics, aesthetics, and philosophy). This included curiosity, objectivity, honesty, open-mindedness, and a commitment to freedom of thought and discussion (Elliott, 2006). For Dewey such attitudes and virtues constituted a democratic way of life, which underpinned the construction of knowledge. Scientific method on this conception is not a procedure for accessing a reality that exists independently of a community of inquirers. What is to count as warranted or justified belief in contrast to mere opinion, dogma and guesswork is solely determined by a democratic discussion of evidence that is aimed at achieving an unforced consensus.

According to philosophical pragmatists, like Dewey and Rorty, there is no standpoint from which to describe the world, whether natural or social, other than one that is conditioned by the practical purposes and interests of human beings. A democratic process of inquiry determines which descriptions of the human environment, natural as well as social, best enable human beings to interact with it effectively to satisfy their needs and desires. Such an account of inquiry leaves little room for a conception of science as a distinctive form of theoretical rationality that is discontinuous with the operation of a practical democratic rationality. One implication of this for teachers is that they might *practically appropriate* some academically constructed educational theory once they are given opportunities to treat it as an object of speculative thought while collaboratively engaged with their peers in a process of practical theorizing.

The theoretical framework, which Perez Gomez and the Malaga group have developed, might have highlighted the possible use of scholarly theory as a hypothetical resource within the practical theorizing process, and its significance for their research into the psychological factors that shape teachers' dispositions to theorize about their practices in classrooms.

Nevertheless, Perez Gomez and the Malaga group have made an original contribution to the development of a theoretical framework for studying the psychology of teachers' practical thinking. It goes far beyond their starting point in the work of Schon and his distinctions between teachers' practical knowledge and their reflections in and on their teaching. It largely rests, I contend, on their conceptualization of the links between two processes of practical thinking, namely, the *theorization of practice* and the *experimentation of theory* (Soto Gomez, Servan Nunez, Perez Gomez & Pena Trapero, 2015). The former process is consciously aimed at "forming concepts, outlines, maps and models of personal experiences and situations" (Trapero & Perez Gomez, 2017). The latter process is a matter of finding ways of making such 'theories' operational,

by using them to directly inform the gradual formation of "new ways of doing, perceiving, interpreting, taking decisions and acting." Although this latter process will also involve *reflecting in and on action* it will eventually change into "unconscious automatic habits" that will respond quickly and efficiently to practical situations as they arise. In this respect practical thing comes full circle having been reflectively reconstructed in the process. Perez Gomez and his group acknowledge similarities between their conception of the "*experimentation of practice*" process and Korthagen's analysis of a phase of practical thinking depicted as "*the reduction of theory to govern practice*", together with Perez Gomez's own concern with ways of helping teachers' to *reconstruct their practical knowledge*.

From my point of view the originality of the research framework developed by Perez Gomez and his associates, is that it serves as the basis for a critique of the UK educational action research movement that originated in CARE at UEA and was inspired by Stenhouse's *Process Model* of Curriculum Development and his idea of the *Teacher as Researcher*. To illustrate this potential, I shall draw on Stenhouse's Humanities Curriculum Project (Stenhouse 1968, 1971) of which I was a team member, the Ford Teaching Project which I co-directed with Clem Adelman (Elliott, 2007), and the Teacher-Pupil Interaction Project which I co-directed with Dave Ebbutt (Ebbutt & Elliott, 1985). I shall argue that a critique of these projects based on the framework developed by Perez Gomez and his Malaga Associates all point to the need for a more developed psychology of action to inform the design of action research. Both Stenhouse's Humanities Project and my own Ford Foundation funded Teaching Project successfully identified 'action patterns' that teachers habitually used in their teaching, but which prevented them from realizing the pedagogical aims and values they espoused.

All three of the projects cited gave priority to helping teachers gather evidence about *the patterns of action and interaction* that they employed with students in their classroom and to reflect on the extent to which these were consistent with the pedagogical aims and principles they espoused and held in common. Indeed, in all three projects teachers compared and contrasted case studies of each other's teaching and produced some general hypotheses about a) patterns of action and interaction that were inconsistent with the realization of the aims and principles they shared, and b) alternative patterns of behavior that were more consistent with their aims and principles. The idea was to involve teachers in the reflective and co-operative construction of a pedagogical knowledge base, which could be continually tested and modified by groups of teachers who shared similar pedagogical aims and principles.

It is now clear to me that in spite of their achievement in systematically and collaboratively deconstructing their practice and then attempting to reconstruct it, all three groups of teacher researchers in the project's cited were largely being helped to systematically and collaboratively engage in a process of *theorizing their practice;* In which they reflected on both the means they adopted to achieve their ends-in-view, and on their ends-in-view in the light of the adopted means. In the *theorization of practice* process the means and ends of teaching are joint objects of reflection. What the academic facilitators, like myself, tended to neglect in all three projects was the *experimentation of theory* process. We tended to assume that once teachers became self-aware of action patterns, which were inconsistent with their espoused aims and principles, they could simply change them by experimenting with alternative ways of interacting with their students.

For example, in the Humanities Project teachers started to explore how they handled 'silence' in situations where they wanted students to discuss a particular topic. They had become aware of the extent to which they interrupted such silences and questioned whether such interruptions were inconsistent with the *principle of developing reflective discussion* as the core learning activity in their classroom. The central team of the project, such as myself, were aware that some teachers were experimenting with the effect of 'not interrupting silences'. Did this create more space for students to reflect about the topic before speaking, or did it simply issue in a battle of wills between teacher and students? If the latter, a teacher might productively intervene by asking pupils to discuss the topic of silences in discussion, and how he the teacher should handle them. Such *experimentation of theory* did occur in the action research projects I have cited, but we tended to regard this as a task for individual teachers on the assumption that once they were clear about what needed to change in their practice it would be relatively easy to make such changes. As facilitators we could have provided our teachers with more support, by helping them to experimentally reconstruct their practical knowledge more systematically and co-operatively. This would involve helping teachers not simply to change their overt behavior but also change those attitudes, values, and emotions that have previously disposed them to act towards their students in the way they do.

3. THE DISPOSITIONS OF THE REFLECTIVE PRACTITIONER AND THEIR CULTIVATION THROUGH LESSON STUDY

With respect to the conceptual framework developed by the Malaga group for researching the practical thinking of teachers Peña Trapero and Perez Gomez claim that "it is on this complex holistic conceptual scenario that subjective dispositions [...] appear as one of the most definitive components in the configuration of practical knowledge and its transformation into practical thinking." They go on to cite a case study to demonstrate this claim. The context for this and other research by members of this group is that of the Japanese Lesson Study Method. This is because it is judged to exemplify two significant aspects of a process that enables teachers to reconstruct their professional knowledge. These are:

1. LS is a systematic process of action research inasmuch as it moves iteratively through cycles of action planning, action, and reflecting on action. In this respect it leaves space for both the systematic *theorization of practice* and the *experimentation of theory*. Interestingly Soto Gomez, Servan Nuñez, Perez Gomez and Peña Trapero (2015) have claimed that two cycles of LS maybe insufficient as space for completing the reconstruction of teachers' practical knowledge. They write:

> The characteristics of our research, in which only one cycle of LS has been developed, shows that the experimentation of the new theory ---and its conversion into new, more flexible and more powerful dispositions requires more practice than the second reformulation and experimentation of the lesson, especially when focusing on teaching habits and dispositions identified as obstacles in the designed and developed lesson.

Looking back to my own experience of the action research projects cited above this is precisely why they were flawed as full expressions the practical thinking process. The teachers

involved did indeed make a start on the *experimentation of theory* aspect, but they did not undergo sufficient *spirals of action research* (Kemmis, 1980; Elliott, 1991) with the support of their professional peers to fully reconstitute new configurations of implicit professional knowledge.

2. LS is disciplined throughout each iteration or cycle by collaborative activity with peers, at the planning, evidence-gathering, and analysis stages.

   In this respect it can be argued that LS is an enhanced model of action research, when compared with the action research movement that emerged in the 1970's. Referring to developments in Spain from that time and later Soto Gomez, Servan Nuñez, Peña Trapero and Perez Gomez (2019) write:

   > After half a century, it can be said that AR has been implemented unevenly and dispersedly in the Spanish education system., meaning the opportunity to create training networks amongst teachers --- has been lost. We need to promote communities of teachers who cooperatively analyze and design proposals that promote learning, thus helping to chip away at the established culture of teaching isolation.

Indeed, I would argue, that earlier examples of action research left too much space for the culture of individualism that permeates the organizational and profession cultures in western educational systems to fully shape the re-construction and use of teachers' practical knowledge within the projects I led. Such knowledge is influenced by the *cultural scripts* (Sarkar Arani et al., 2014) that are generated and reinforced in these systems, including the field of higher education.

It was largely the academic facilitators who planned and organized the collaborative activities in the projects I cited above. We brought teachers together to analyze data and plan research procedures, such as the 'construction of case studies and 'presentation of findings'. Hence, the systematic and collaborative aspects of the action research process were largely treated by school leaders and advisers as temporary 'add-ons' to the prevailing organizational culture of schools. As an innovation Action Research did not seriously threaten to radically transform the prevailing professional and organizational cultures in educational institutions.

This poses the question of how large a professional community undertaking school-based LS needs to be. Like the Malaga group I have, with colleagues, also been active in promoting Lesson Study as a form of teachers-based action research. We have spent the last decade attempting to design, develop and facilitate a post-graduate Masters-level module to support professional communities undertaking LS in schools. The greatest difficulty has involved either:

a. embedding LS as a modular option within our individually recruited master's programme; in which case the individual teacher is responsible for recruiting an in-school research team to work with. In most cases we have found that the research teams tend to be no larger than two persons.
b. recruiting school-based teams to the module on a self-standing basis, of sufficient size to offer the prospect of school leaders using them to establish a sustainable school-wide LS programme.

It has been our experience that duo LS teams complete no more than 2-3 cycles of LS whereas the larger teams generate as many cycles as there are team members. The number of research cycles is largely a function of team-size, given the normal way of organizing LS in which each team member takes it in turn to teach the same research lesson to a different class while the other team members observe. Given the findings of Soto Gomez, Servan Nuñez, Perez Gomez, and Peña Trapero (2015) about the number of iterations necessary to complete the *experimentation of theory* phase of the action research satisfactorily, one might conclude that a large team of teacher researchers is necessary to change the culturally shaped teaching patterns and dispositions identified as constraints on the realization of the teachers' pedagogical aims and principles.

Peña Trapero and Perez Gomez's Case Study (2017) of an infant teacher's practical thinking illustrates the potential of an iterative team-based Lesson Study to shape and reorganize those dispositions that underpin a teacher's ability to reconstruct their practical knowledge. As such the research project involving a group of 14 infant teachers only involved the teacher in two cycles of LS. Given the authors reservations about the lesson study process being restricted to only two iterations I assume that the story they tell about this teacher's practical thinking is in some sense incomplete with more pedagogically significant features yet to unfold. Hence, Peña Trapero and Perez Gomez write:

> The evidence shows that, in the specific case of this teacher, her LS experience has bolstered or supplemented rather than transforming them, leading to practice which is much more in line with a series of beliefs which, in this case, are in a process of continuing construction.

What the teacher becomes initially aware of prior to the lesson study, but after an *initial observational plus interview case study* of her practical knowledge, is a disposition to exert tight control over her students learning during their project work, based on a deep belief that she is responsible for what they learn. Peña Trapero and Perez Gomez point out that before the LS the teacher's "day-to-day practice was laden with micro-decisions which prevented her from reflecting on the moment" (*reflection-in-action*). However, in the context of the LS, the teacher expresses the intention to move away from this teacher-centered stance by creating micro-environments in which the children could make their own decisions. In this context the teacher spent time observing the children at work to monitor their progress as learners. As a result of the LS, "having set aside more time for attention and observation of her pupils" the teacher broadened her conception of her aims, which went beyond the mere memorization of content. Peña Trapero and Perez Gomez reported that she was now *reflecting on* how to improve her practice with regards to the coherence between what the pupils do and her aims and teaching methodology. Her new commitment to student-centered learning, Peña Trapero and Perez Gomez point out, "resulted in the teacher having more trust in autonomous learning and respect for the different rhythms and needs of her students as learners". They identify three major dispositions being cultivated with this teacher in the context of the Lesson Study process she engaged in. They were those of:

1. *attention* to students learning processes.
2. *commitment* to a particular teaching methodology by creating student-centered learning environments, which give her students opportunities to make their own decisions.

3. *a positive attitude towards reflection before, during* and *after action.*

Such dispositions are portrayed in this case study as intrinsic qualities cultivated in the process of Lesson Study. As such it demonstrates the fact that LS is not a pedagogically or educationally neutral process. Underpinning it is a commitment to the realization of a certain vision of education.

The work of Ángel Pérez Gómez and his associates at the University of Malaga has enormous practical significance for teacher educators, school leaders, and members of the teaching profession who share this vision but have yet to find the key that will create the conditions for radical educational change.

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