

A proposal that provokes further dialogue about practitioner inquiry and elements of a methodological exploration.

Michael Reed

e-mail: m.reed@worc.ac.uk

University of Worcester, Institute of Education, Centre for Early Childhood,
Worcester, United Kingdom

ABSTRACT: This paper is concerned with teaching and learning in higher education and is situated in a field of study known as students as researchers. This is where students engage in learning at university aligned with a practice-led inquiry conducted in the workplace. It is a process, which can be applied to a number of modalities or disciplines, but in this case concentrates on the training of early education students. It describes the instructional design for a course and offers a conceptual model for how this can promote higher order learning and professional reflection on practice. The paper is presented as a thoughtful stimulus intended to provoke further dialogue about practitioner inquiry and elements of methodological exploration.

Keywords: *Practice-led inquiry, instructional design, reflection, questioning*

***Short papers**

What is practice-led inquiry?

Practice-led inquiry is situated in a field of study known as students as researchers. It is a process which can be applied to a number of modalities or disciplines and its design follows a pattern of teaching which the Quality Assurance Agency for Higher Education in the UK, (QAAHE, 2014) suggest is a two-way process; where learning in one environment complements the other. It does not have to be a means of directly illuminating or determining if practice needs to be improved or refined, though this may emerge from the inquiry. It might only be concerned with inquiring into what works and why and asking what can be done to extend what goes on. The aim is to broaden the learning of the student as they engage in a collaborative inquiry within an early education setting.

Students usually follow a methodology allied with action research and a sequence of investigation situated within the Research Skills Development Framework (Willison & O'Reagan, 2007). This suggests a staged sequence of research which can be applied to any level of professional and institutionally based study. It involves the identification of a focus for the inquiry, locating relevant literature, engaging in an investigation and carrying out an analysis of what has been found. In terms of scholarship the student is expected to consult and draw together literature from research studies and published conceptual thinking to establish a formative focus for an investigation, which they explain and defend via the submission of a written narrative.

There is considerable evidence of effect following participation, which has been seen to have direct relevance to education, in particular to curriculum evaluation (Maughan et al, 2012; Menter, 2011) and public health services (Potter & Quill, 2006). There are also commentators who suggest it can enhance professional and personal capability and promote a deeper understanding of how theory complements practice (Fleet and Patterson, 2001; Fleet et al, 2016; Newman & Woodrow 2015; Reed & Walker, 2014; Walkington, 2015; Walkington & Hill, 2013). It can also be seen as a vehicle for higher level learning as it involves clarifying issues, sourcing information, evaluation, analysis and reflection on the inquiry process (Walker & Reed 2012; Healey et al 2013; Jenkins & Healey, 2009).

In terms of an effective course structure to support practice-led inquiry there is less evidence but there is agreement about the key components of effective instructional design. These are seen to be the quality of teaching and the effective use of institutional resources and policies which promote meaningful learning outcomes (Kuh et al, 2006; Kuh, 2008). Student engagement is sustained through a carefully planned instructional design, flexible institutional policies, the quality of teaching and assessment and facilitating student agency (Zepke & Leach, 2010; Leach 2016). Learning is further enhanced via collaborative partnerships between tutors, students and the workplace. This involves the students developing self-directed active engagement in forms of learning and research (Higher Education Academy HEA, 2013).

A proposal for instructional design and pedagogy

The context for this proposal is an institutionally derived modular course of study taught within a university degree programme and aligned with workplace practice. In this case, study over one academic year with access to an early education setting. In terms of the pace of learning, it means adopting a course design which estimates active student engagement from induction to a carefully guided exploration of content and ways of promoting self-organised learning. The student is expected to time-manage the

inquiry in collaboration with their tutor and the setting. This involves choice making about the scope and range of an inquiry, so it can be realistically managed in the time available. It also involves the student taking professional responsibility for their actions. Students are therefore, introduced to the Universities UK concordat (2012). The concordat explains the need to adhere to standards of rigour and integrity and conform to ethical and professional obligations. They are also introduced to guidance on ethical research behaviour published by the British Educational Research Association, (BERA, 2011) and the European Early Childhood Education Research Association, (EECERA, 2015). The intention is to help students recognise that a practice-led inquiry is conducted with people, not on people, and is rooted in ethical research practice.

In practice, this means a student taking responsibility for establishing the initial focus of the inquiry and testing out the validity of the focus by consulting with workplace colleagues. This requires the student to regard those colleagues as “research partners involved in developing practice” (Solvason, 2015:309). It is a process, which requires careful and sensitive negotiation which may involve a reorientation of the focus in order to arrive at a shared research question. This conveys to workplace colleagues how the inquiry is an integrated part of day-to-day practice conducted by someone who is inside the setting rather than viewing practice from the outside. The intention is for everyone closely involved - including parents and the wider community - to understand how the inquiry will proceed and how it may have a value to the setting and influence practice (Beckham & Hensel, 2009; Jenkins & Healey 2009; Reed & Callan, 2011). This results in a written research proposal and an ethical protocol agreed between the student, tutor and the setting.

The intention is to arrive at a collaborative and meaningful process, which exposes the interface between the student and the learning environment. This includes the extent to which the inquiry findings and a summative written narrative is shared with those closely involved. It is therefore much more than following a sequence of events as it involves professional learning, diplomacy and the ability to faithfully record what goes on. The authenticity of the inquiry is seen in terms of its value to the community it serves. The student is therefore introduced to the consequences of moving between different strands of engagement (Kubiak et al 2014). This is because any incursion into an organisation touches the whole learning environment, which includes the multiple relations of professional expertise, ethical and moral practices, power and perceptions of quality that exists in practice (Cumming et al, 2013).

The methodological approach involves collaborative action research with workplace colleagues to ensure data collection and analysis is valid, reliable and fit for purpose (Donohoo, 2011; Reason & Riley, 2008). It also involves an understanding of workplace

systems and recognising that the data gathering and analysis is influenced by context and the cultural identity of the organisation (Fakhar et al, 2012; Schein, 1990). For example, the setting may have a well-established team approach to teaching and learning. It may promote alliances with other professionals or value collaborative engagement with parents. It is also important for the course content to address the wider socio-political context and local ecological contexts which may influence the inquiry, such as the professionalisation of the workforce and the professional identity of early educators (Musgrave, 2010; Parker et al, 2013; Penn, 2007). Students are also introduced to the scope and range of debates surrounding what is meant by quality early education. This includes an understanding of quality determinants which come from professional actions in the workplace. It also includes those determined by regulation and inspection and how quality is claimed to be measured (CoRe, 2011; Fenech, 2012; Huntsman, 2008; Mathers et al, 2012; Reed, 2012; Sylva et al, 2012; Zaslow et al, 2009).

In terms of teaching and learning the aim is to gradually lessen tutor dependency and encourage self-directed professional inquiry that may shape professional thinking and practice (Ioannidou-Koutselini & Patsalidou, 2015). The intention is to help the student understand how they are themselves an instrument of the inquiry and reflect on that process. (Jacobson, 1998; Kolb, 1984; Wenger, 1998). A process of ongoing reflection becomes part of the course design. This is assisted by a pedagogy which involves asking (the student) reflective questions about the inquiry process. Questions, which are intended to promote thinking about practice, whilst inquiring into practice. However, they should not be seen as just questions to guide a student or monitor student activity, they are a way of reaching out through the student and touching the real world in which people operate. A world which represents a collective professional culture based upon a history of important experiences which make up a shared educational landscape. Examples of such questions are shown below. These are not exhaustive but do illustrate the scope and range of what is asked.

Questions involving those most closely involved

Have you considered a broad focus for investigation?

Have you interrogated relevant literature, which provides a theoretical understanding of the focus? What has this revealed?

How will you collaborate with those in the setting to explain your intention and arrive at a focus and key questions for the inquiry that will enhance your learning and be of value to the setting?

Have you considered an ethical base and protocol? Is this visible in approach you intend to take?

Have you revised and reinterpreted the desired focus in light of consultation with the setting?

Who will be involved in the inquiry? Is the scope and range of the inquiry now clear? How do you know?

Is there a culture within the setting, which understands why asking questions about what goes on, is important? For example, is the setting using self-evaluation strategies?

How will you help people understand why a practice-led inquiry is not a single event, it is a process which needs to be carefully planned with others?

How will you help people understand how a practice-led inquiry may help to reveal high expectations about children's learning and quality practice?

How will you help people understand how a practice-led inquiry can provide reliable information about what is done well and the barriers to doing well?

Do people understand why your professional learning is also learning for everyone else, as they answer questions and assist you in making decisions?

Do people understand why reliable information about the effect of what goes on is important to shape children's learning? How will you encourage everyone to contribute, including the children?

There are professional and personal consequences when even simple changes emerge as the inquiry moves forward? How will you reassure others that any thoughts about change will be explained in a sensitive and professional way and everyone will be consulted?

What personal and professional qualities are you developing as you shape and refine the inquiry? For example, a planner, negotiator, communicator, listener, collaborator?

Is the focus of the inquiry clear? Has it narrowed or widened as a result of these questions and conversations?

Questions: the inquiry in practice

Are you sure the inquiry theme is relevant to the setting, the children? Are you now able to articulate in writing the focus for the inquiry and a research question?

How will people be kept informed of the findings and pace of the inquiry as it moves forward?

Will the inquiry inform inspection and regulation requirements? In what way?

How will the inquiry be managed? What is the time scale? Are you being realistic about what can be done, by when and by whom?

How will you explain the aims and theme the inquiry so everyone can understand it? How will the children be informed and give their assent and consent?

You may have identified strong values and a distinctive identity within the setting. How will you protect those values and beliefs as you engage in the inquiry?

Ethical behaviour when developing a practice-led inquiry is important? Is this visible in the approach to data gathering you intend to take?

Is it possible to sensitively gather information in a way to minimise any disruption to children's learning?

How will you include the child's voice and voice of the community?

Reflective questions

Do you know more or less than you did about your role as a researcher, your professional responsibility and forging professional relationships?

In what way has this process extended and enhanced your learning and professional practice? Did you sometimes take the lead or helped to shape practice?

What have you learnt about the interactions between people the setting and the community?

You developed a shared consent about the focus and ways of undertaking the inquiry. Does this enhance the validity and reliability of data?

Is it possible to reflect on what the inquiry process will look like as seen through the eyes of others, including the children?

The questions contribute to a pedagogy, which is intended to promote a positive interaction between tutors and students and recognises learners' involvement in the process, by facilitating decision making and providing a "momentum to learn" (Knowles, 1990, p. 1). As with any programme of professional development it involves a transmission of knowledge and the use of reflective questioning allows the student and tutor to consider how that knowledge has a relevance to practice, in particular the way it makes visible what is learnt (Jarvis, 2002; Reed, 2011). This blurs the distinction between a traditional pedagogical approach and an interactive and participatory form of learning. The aim is to allow students to acquire knowledge and also construct knowledge from their learning (Hase & Kenyon, 2000). The instructional design is therefore an examination of practice, which includes the reciprocal relationships between individuals, the community and organisational systems. It therefore empowers students to think critically about their own learning (Stremel, 2007, Callan, Reed, & Smith 2011). Progress is monitored via formative learning activities which examine the interaction between the aptitude and acquired experiences of the student and the extent to which this is related to their inquiry and the course learning outcomes

A conceptual model

A conceptual model provides a way to explore the many interconnected components of a process or event in order to understand how these come together (Creswell, 1994). In this case a model of professional learning focused on practice-led inquiry. It is shown as Table 1. It represents the instructional design and pedagogical base proposed in this paper which is underpinned by certain values and principles:

- the inquiry process should be ethical and visible in practice;
- the inquiry process should not attempt to impose refinements to the learning environment or test any pedagogical approach without the agreement of those most closely involved;

- the inquiry is conducted in the company of others. It recognises the child's voice and the influence of locally derived organisational culture;
- the veracity of the inquiry is dependent on rigorous scholarship which is informed by the course and the attitude, and professional capability of the student;
- the inquiry leads to the construction of a written narrative which will reflect on the inquiry process, its findings and personal effect.

The model represents a course of study over one academic year. It considers patterns of student learning located within two aligned axis. The *horizontal axis* represents learning estimated as emerging over time as the course moves forward. As this happens a student will develop knowledge, analyse that knowledge and apply their understanding in practice. They reconstruct their learning by reflecting on the process. A process which starts with a careful induction to the course in order to establish its scope and range and professional requirements. Thereafter, it involves guided exploration and active participation in the inquiry. This relies on the student engaging in self-organised learning and becoming a self-organised learner. It is a pattern of learning intended to promote not only an acquisition of knowledge, but reflection on that knowledge which forms part of a final written narrative. The *vertical axis* represents structural patterns of learning, estimated to include applied higher order skills and self-reflection on learning. The aim is to develop analysis and enhance personal and professional capability. This assumes there are choices to be made as a result of questions asked and answered throughout the inquiry process. These are not just operational or logistic choices. They are moral and ethical choices made in the company of others and involve the student in careful self-reflection before making decisions. This is important because it is their level of engagement in choice making activities which promotes learning and develops higher order skills. It also means (for the tutor and student) a consideration of what is actually meant by autonomy in practice. In this case, it is seen as the instructional design empowering a student to take responsibility for their own learning and actions and make considered choices and ultimately to be accountable for those actions.

TABLE 1 Conceptual model: patterns of learning

<i>Patterns of learning</i>	<i>Understanding</i>	<i>Application</i>	<i>Demonstrates</i>	<i>Re-constructs</i>	<i>Reflection</i>
<i>Estimated progression of learning</i>	Induction	Guided exploration	Active participation	Self-organised learning	Self-organised learner
<i>Forms of learning</i>	The inquiry process as a means of learning	Testing knowledge in practice	Professional learning in practice	Reflection on learning	Reflection: personally and professionally
<i>Practice-led inquiry</i>	Understanding the scope and range of the inquiry	Application of action research methods and methodology	Professional capability as a researcher	Forms ideas and reflects on what has been found	Reflection on role, responsibilities and relationships
<i>Applied higher learning</i>	Clarifying issues and sourcing information. Planning a cohesive inquiry	Negotiating and operating in the company of others.	Evaluating reflecting organising and analysing material.	Information synthesised and analysed.	Reflection on the strengths and limitations of the inquiry process.
<i>Practice and policy</i>	Recognises quality practice and its relationship to organisational culture	Explores opportunities and constraints of regulatory and policy features	Deepens knowledge of policy and practice via the inquiry focus	Inquiry evidence is related to local and national policy	Inquiry findings related to local and national policy
<i>Reflection</i>	Ethical behaviour. Personal and professional positioning	Able to see issues through the eyes of others	Questions what goes on – seeing things differently	Considers the inquiry in terms of influence on practice	Asks questions wider than the here and now
<i>Monitoring</i>	Are the inquiry processes understood?	Response to practice-led reflective questions	Evidence of synthesizing information	Analysis of the inquiry process.	Meeting course learning outcomes

A thoughtful stimulus intended to provoke further dialogue

This paper has argued that practice-led inquiry develops not only an understanding of the research process but enhances professional capability. There is evidence that the process enhances scholarship and is directly relevant to shaping practice because it involves a cycle of child focused study, reflection and evaluation aimed at improving teaching and children's learning. An approach, which the Office for Standards in Education, Children's Services and Skills (Ofsted, 2013) who inspect early education in England, suggests is significant in improving quality and is a key part of leading practice. The process also involves understanding the impact of inquiring into practice, both personally and professionally. In particular realising that conducting a practice-led inquiry has consequences and asking questions about practice is likely to reach out and touch many parts of the organisation. As this happens the student will inevitably consider their own actions in, on and for practice and there is likely to be a personal and professional transformation of views and thinking. This suggest the process is more than engaging in an inquiry, because the inquiry itself is catalyst for professional learning and professional understanding.

It is hoped this paper will provoke discussion and it does raise two immediate questions. Firstly, if practice-led inquiry is an important tool for learning should it be embedded throughout a degree programme or at least introduced gradually and strategically as part of effective teaching and learning? Secondly, are the skills and qualities claimed to emerge from an inquiry, carried through into occupational practice and sustained over time? It would seem both questions require further investigation.

References

- Beckham, M. & Hensel, N. (2009). Making explicit the implicit: defining undergraduate research. *Council for Undergraduate Research Quarterly*, 29(4), 40–44.
- BERA – British Educational Research Association. (2011). Revised Ethical Guidelines for Educational Research. Retrieved from: <http://www.bera.ac.uk/blog/category/publications/guidelines/>
- Callan, S., Reed, M., & Smith, S. (2012). A pedagogy for educating new professionals. In T. Papatheodorou (Ed.), *Debates on Early Childhood Policies and Practices: Global Snapshots of Pedagogical Thinking and Encounters* (pp.95–104). London: Routledge
- CoRe – Commission, Directorate-General for Education and Culture. (2011). *Competence Requirements in Early Childhood Education and Care*. European Commission, Directorate-General for Education and Culture Final Report. University of East London, Cass School
- Reed. *Varhaiskasvatuksen Tiedelehti — JECER* 5(1) 2016, 189–201. <http://jecer.org/fi>

- of Education and University of Ghent, Department for Social Welfare Studies, September 2011. Retrieved from: <http://files.eric.ed.gov/fulltext/ED534599.pdf>
- Creswell, J.W. (1994). *Research design: Qualitative and quantitative approaches*. Thousand Oaks, CA: Sage.
- Cumming, T., Sumsion, J., & Wong, S. (2013). Reading between the Lines: an interpretative meta-analysis of ways early childhood educators negotiate discourses and subjectivities informing practice, *Contemporary Issues in Early Childhood*, 14(3), 223–240. <http://dx.doi.org/10.2304/ciec.2013.14.3.223>
- Donohoo, J. (2011). *Collaborative Inquiry. A Facilitator's Guide*. London Region Professional Network. Retrieved from http://misalondon.ca/PDF/collabpdfs/Collaborative_Inquiry_Guide_2011.pdf
- EECERA. (2014). *European Early Childhood Education Research Association Code of Ethics*. Retrieved from <http://www.eecera.org/ethical-code/>
- Fakhar, S., Luqman, R., Khan, A., & Shabbir, L. (2012). Impact of Organizational Culture on Organizational Performance: An Overview. *Interdisciplinary journal of contemporary research in business*, 3(9), 975–985. Available from <http://www.journal-archieves14.webs.com/975-985.pdf>
- Fenech, M. (2011). 'An analysis of the conceptualisation of "quality" in early childhood education and care empirical research: promoting "blind spots" as foci for future research'. *Contemporary Issues in Early Childhood*, 12(2), 102–117. <http://dx.doi.org/10.2304/ciec.2011.12.2.102>
- Fleet, A. & Patterson, C. (2001). Professional growth reconceptualized: Early childhood staff searching for meaning. *Early Childhood Research and Practice*, 3(2). Retrieved from <http://ecrp.uiuc.edu/v3n2/fleet.html>.
- Fleet, A., De Gioia, K., & Patterson, C. (2016). *Engaging with Educational Change: Voices of Practitioner Inquiry*. London: Bloomsbury.
- Hase, S. & Kenyon, C. (2000). *From Andragogy to Heutagogy*. Melbourne: uliBASE [1]
- Healey, M., Lannin, L., Stibbe, A., & Derounian, J. (2013). *Developing and enhancing undergraduate final year projects and dissertations*. York: HE Academy: Retrieved from http://www.heacademy.ac.uk/projects/detail/ntfs/ntfsproject_Gloucestershire10
- Higher Education Academy HEA. (2013). *Students as partners*. Retrieved from: <http://www.heacademy.ac.uk/students-as-partners>
- Huntsman, L. (2008). *Determinants of Quality in Child Care: A Review of the Research Evidence*. New South Wales Government, Centre for Parenting and Research Service System Development Division, NSW Department of Community Services. Retrieved from <http://library.sl.nsw.gov.au/record=b3022976~S2>
- Ioannidou-Koutselini, M. & Patsalidou, F. (2015). Engaging school teachers and school principals in an action research in-service development as a means of pedagogical self-awareness. *Educational Action Research*, 23(2). Retrieved from <http://www.tandfonline.com/doi/full/10.1080/09650792.2014.960531#abstract>
- Jacobson, W. (1998). 'Defining the quality of practitioner research'. *Adult Education Quarterly*, 48(3), 125–139. DOI: 10.1177/074171369804800301
- Reed. *Varhaiskasvatuksen Tiedelehti — JECER* 5(1) 2016, 189–201. <http://jecer.org/fi>

- Jarvis, P. (2002). *Adults and Continuing Education*. 2nd Edition. London: Routledge.
- Jenkins, A. & Healey, M. (2012). Research-led or research-based undergraduate curricula. In D. Chalmers & L. Hunt (Eds.), *University teaching in focus: a learning centred approach* (pp. 128–144). Camberwell, Victoria, Australia: Acer.
- Knowles, M. S. (1990). *The Adult Learner: A Neglected Species*. Houston: Gulf Publishing Company.
- Kolb, D. (1984). *Experiential Learning: Experience as the Source of Learning and Development*. London: Prentice-Hall.
- Kubiak, C., Fenton-O’Creevy, M., Appleby, K., Kempster, M., Reed, M., Solvason, C., & Thorpe, M. (2014). Brokering boundary encounters. In E. Wenger-Trayner, M. Fenton-O’Creevy, S., Hutchinson, C. Kubiak, & B. Wenger-Trayner (Eds.), *Learning in Landscapes of Practice* (pp. 81–97). Oxon: Routledge.
- Kuh, G. D. (2008). *High-impact educational practices: What they are, who has access to them, and why they matter*. Washington, D.C.: AAC&U.
- Kuh, G., Kinzie, J., Buckley, J., Bridges, B., & Hayek, J. (2006). *What matters to student success: A review of the literature?* Retrieved from http://nces.ed.gov/npec/pdf/kuh_team_report.pdf
- Leach, L. (2016). Enhancing student engagement in one institution. *Journal of Further and Higher Education*, 40(1), 23–47. DOI: 10.1080/0309877X.2013.869565
- Mathers, S., Singler, R., & Karemaker, A. (2012). *Improving Quality in the Early Years: A Comparison of Perspectives and Measures*. Research Brief. London: Daycare Trust and University of Oxford.
- Menter, I., Elliott, D., Hulme, M., Lewin, J., & Lowden, K. (2011). *A Guide to Practitioner research in Education*. London: Sage.
- Maughan, S., Teeman, D., & Wilson, R. (2012). *What Leads to Positive Change in Teaching Practice* NFER Research Programme: Developing the Education Workforce. Slough: NFER
- Musgrave, J. (2010). Educating the future educators: the quest for professionalism in early childhood education. *Contemporary Issues in Early Childhood*, 11(4), 435–442. <http://dx.doi.org/10.2304/ciec.2010.11.4.435>
- Newman, L. & Woodrow, C. (Eds.) (2015). *Practitioner Research in Early Childhood: International Issues and Perspectives*. London: Sage.
- Ofsted – Office for Standards in Education, Children's Services and Skills. (2013). *Getting it right first time: Achieving and maintaining high-quality early years provision*. Reference: 130117. Retrieved from: www.ofsted.gov.uk/resources/130117.
- Parker, I. (2013). Institute of Public Policy and Research. *Early Developments and Policy: Bridging the Gap between Evidence and Policy*. Retrieved from <http://www.ippr.org/publications/%20early-developments-bridging-the-gap-between-evidence-and-policy>
- Penn, H. (2007). Childcare market management: how the United Kingdom Government has reshaped its role in developing early childhood education and care. *Contemporary Issues in Early Childhood*, 8(3), 192-207.
- Reed. *Varhaiskasvatuksen Tiedelehti — JECER* 5(1) 2016, 189–201. <http://jecer.org/fi>

- Potter, M. A. & Quill, B. E. (2006). *Demonstrating Excellence in Practice-Based Research for Public Health*. Special Publication, Association of Schools in Public Health. Texas. Retrieved from <http://www.publichealthreports.org/issueopen.cfm?articleID=1589>
- QAAHE – Quality Assurance Agency for Higher Education (2014). *UK Quality Code for Higher Education, Part A: Setting and Maintaining Academic Standards*. Retrieved from <http://www.qaa.ac.uk/en/Publications/Documents/Foundation-Degree-Characteristics.pdf>
- Reason, P. & Riley, S. (2008). Co-operative Inquiry. An Action Research Practice. In J. Smith (Ed.), *Qualitative Psychology – a practical guide to research methods* (pp. 207–235). London: Sage.
- Reed, M. (2012). What do we mean by Quality Improvement? In M. Reed & N. Canning (Eds.), *Implementing Quality Improvement and change in the Early Years* (pp. 9–24). London: Sage.
- Reed, M. & Callan, S. (2011). Work-based research in the early years – positioning yourself as a researcher In S. Callan & M. Reed (Eds.), *Work Based Research in the Early Years* (pp. 1–15). London: Sage.
- Reed, M. (2011). Reflective Practice and Professional Development In A. Page-Smith & A. Craft, (Eds.), *Developing Reflective Practice in the early years* (Second Edition, pp. 278–299). Berkshire: McGraw Hill, Open University Press.
- Reed, M. & Walker, R. (2014). Leading by Example: An Examination of Early Education Foundation Degree Students Completing Research Dissertations. *Journal of Early Childhood Education Research*, 3(1), 51–64. Retrieved from <http://jecer.org/issues/jecer-31-2014/>
- Schein, E. (1990). Organisational Culture. *American Psychologist*. *American Psychological Association*, 45(2), 109–119
- Solvason, C. (2015). The responsibility of the practice-based researcher, In M. Reed & R. Walker (Eds.), *A Critical Companion to Early Childhood* (pp. 307–319). London: Sage.
- Stremmel, A. (2007). The Value of Teacher Research: Nurturing Professional and Personal Growth through Inquiry. *Voices of Practitioners*, 2(3). Retrieved from <http://journal.naeyc.org/btj/vp/pdf/Voices-Stremmel.pdf>.
- Sylva, K., Melhuish, E. C., Sammons, P., Siraj-Blatchford, I., & Taggart, B. (2012). *Effective Pre-school, Primary and Secondary Education 3–14 Project (EPPSE 3–14). Final Report from the Key Stage 3 Phase: Influences on Students’ Development From Age 11–14*. Research Report: DFE-RR202. London: Institute of Education.
- Universities UK. (2012). The concordat to support research integrity. London: Universities UK. Retrieved from <http://www.universitiesuk.ac.uk/highereducation/Pages/Theconcordattosupportresearchintegrity.aspx#.Vw67DOHmodU>
- Walker, R. & Reed, M. (2012). Early Childhood Practitioners Developing an Academic Voice and Tutors Making Sense of the Research Process, *NZ Research in Early Childhood Education Journal*, 15,137–149.
- Reed. *Varhaiskasvatuksen Tiedelehti* — *JECER* 5(1) 2016, 189–201. <http://jecer.org/fi>

- Walkington, H. & Hill, J. (2013). *Graduate attributes in the co-curriculum. Mapping the impact of undergraduate research dissemination*. Association of American Geographers Annual Conference LA, USA, [paper] April 2013.
- Walkington, H. (2015). *Students as researchers: Supporting undergraduate research in the disciplines in Higher Education*. York: Higher Education Academy, York. Retrieved from https://www.heacademy.ac.uk/sites/default/files/resources/Students%20as%20researchers_1.pdf
- Willison, J. & O'Regan, K. (2007). Commonly known, commonly not known, totally unknown: a framework for students becoming researchers. *Higher Education Research and Development*, 26(4), 393–409.
- Zaslow, M., Tout, K., Halle, T., & Forry, N. (2009). Office for Planning Research and Evaluation, OPRE. Multiple Purposes for Measuring Quality in Early Childhood Settings: Implications for Collecting and Communicating Information on Quality. *Issue Brief 2, Child Trends*. Washington, DC. Retrieved from www.childtrends.com
- Zepke, N. & Leach, L. (2010). Improving student engagement: Ten proposals for action. *Active Learning in Higher Education*, 11(3), 167–177.

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