

Kent Academic Repository

Full text document (pdf)

Citation for published version

Lehane, Maria and Beaton, Fran (2020) Getting the Gist (Guided Individual Study Time): Flexible learning and the co-production of knowledge: A journey from theory to implementation. The Journal of Educational Innovation, Partnership and Change, 6 (1). ISSN 2055-4990.

DOI

<https://doi.org/10.21100/jeipc.v6i1.1013>

Link to record in KAR

<https://kar.kent.ac.uk/80413/>

Document Version

Publisher pdf

Copyright & reuse

Content in the Kent Academic Repository is made available for research purposes. Unless otherwise stated all content is protected by copyright and in the absence of an open licence (eg Creative Commons), permissions for further reuse of content should be sought from the publisher, author or other copyright holder.

Versions of research

The version in the Kent Academic Repository may differ from the final published version.

Users are advised to check <http://kar.kent.ac.uk> for the status of the paper. **Users should always cite the published version of record.**

Enquiries

For any further enquiries regarding the licence status of this document, please contact:

researchsupport@kent.ac.uk

If you believe this document infringes copyright then please contact the KAR admin team with the take-down information provided at <http://kar.kent.ac.uk/contact.html>

Getting the GIST – flexible learning and the co-production of knowledge: a journey from theory to implementation

Maria Lehane,
Canterbury Christchurch University,

Fran Beaton
University of Kent

Introduction

The title of this case study reflects the aim of what came to be termed the ‘guided individual study time’ (GIST) project at the University of Kent – viz. to enable higher education (HE) students to identify their own learning needs, take support from the tutor and offer and gain support from each other, thereby successfully to navigate study towards the co-production of knowledge. Through both individual attention by the tutor and through group work, GIST enabled students to identify their own learning outcomes and thus improve their study skills. The intention, within an eleven-week semester period, was to foster students’ confidence in using research skills in the context of their acquired understanding of the learning outcomes of, and grading criteria for, the module. The project involved me, the first author, and forty-four second- and third-year (stages 2 and 3) undergraduates; its approach advocated flexible, interactive learning in both lecture and seminar environments and encouraged the co-production of knowledge. This development of a community of practice involving both the students and their lecturer would, we hoped, result in a holistic and proactive student-staff relationship and better student engagement with academic assignments. Such an active learning environment would challenge the traditional didactic model prevalent in HE lecture delivery (Jaschik, 2018). The physical environment of the lecture *theatre*, with its podium and front-facing, tiered rows, inevitably creates a barrier between lecturer and students, inhibits discussion and physically defines the relationship: central character and audience. Race (2014) refers to students as passive listeners and notes that, in some lecture environments, they may even fall asleep and snore (*op.cit.*, p.186). Though the seminars did, before this project, tend to be less didactic in nature than the lectures, we still sought to increase student participation in both and to equalise student-staff power relations (Bryson, Furlong and Rinaldo-Langridge, 2015).

The rationale for the project

The GIST project – chiefly intended to shift the emphasis from a teaching-led to a learning-led curriculum and involving, in the co-production of knowledge, students from various disciplines (sociology, law, health, social care, criminology and social policy) – took place within an eleven-week, ‘wild card’ policy module: ‘education and training’. This module’s multi-discipline perspectives covered aspects of history, politics, sociology and current affairs; its appeal to the students, who came from a predominantly ‘widening participation’ background, derived from the fact that all had participated in education themselves and had something from their experience to contribute. Their participation as co-producers was pivotal to a project whose practical goal was to achieve an inclusive, active-learning approach that incorporated “*shifts in thinking*”, so that the “*learning community as a whole*” would become “*an important unit of analysis*” (Leach and Moon, 2000, p.395). This learning community – students, teachers, their relationships, contexts and pedagogy – as a unit of analysis was indeed our focus, because, from a learning perspective, “*classrooms are complex social settings*”, with knowledge “*jointly constructed*” through activity and collaboration (Leach and Moon, 2008, p.66). Neary (2010) strongly advocated an active and

Case Studies

collaborative methodology and his work inspired the adoption of this focused, student-centred teaching approach.

The project considered environment, teaching and learning styles, methods of assessment and dialogic feedback; it acknowledged and valued the role of students as co-producers of knowledge, rather than as passive recipients. It also sought to reduce student boredom and facilitate for me, the lecturer, a reflective examination of pedagogic practice. I was myself engaged with the *Postgraduate Certificate in Learning and Teaching* (PGCERT) in HE, working as a 'student as co-producer of knowledge' in collaboration with my tutor (the second author). Such a context provided a further lens to the GIST project as I extended the co-producer ethos to the undergraduate student teaching and learning environment. In fact, the GIST concept first emerged from a Friday afternoon informal learning session with the undergraduates involved in the project and its ethos spread to the lecture and seminar sessions, as we explore in further detail in the 'project implementation' section.

The GIST project aimed to facilitate formative feedback opportunities for students in both lecture and seminar contexts, "*as an integral part of the learning and feedback strategy*" (Pokorny, 2016, p.72), and to create an environment in which "*dialogue [was] rich in formative feedback*" (Nicol and Macfarlane-Dick 2006, p.205). This aim was extended to summative assessments so that these, too, would focus on being student-orientated, ensuring that the feedback identified transferable skills to enrich the students' learning experience through enhanced participation. These aims were borne out of a practice perspective that acknowledged the criticism often levelled at 'summative assessment *of* students' learning', which often, though aiming to contribute to students' knowledge, meets institutional quality requirements before it meets students' learning needs. This project aimed to bring a constructive alignment between students' participation during lectures and seminars, ensuring congruence with both the assessment *of* and *for* their learning (Biggs and Tang, 2011). The goal was to ensure that the students understood and recognised congruence between the learning outcomes, assessment method (two essays) and grading criteria. The process of developing this set of skills and knowledge involved the students, in collaboration with each other and the lecturer, so that they might identify gaps in their own study skills and make explicit what they thought were their individual learning needs. It was this interim activity – students voicing their academic challenges to each other and sharing concerns – which GIST facilitated and by which the students developed the academic confidence to enable them proactively to take responsibility for their development towards their learning (Scott, 2017). This, incidentally, also has application to a wider skills remit – that of critical thinking and independence (HEQC, 1996).

On a more pragmatic and possibly more measurable dimension, the project aimed to increase students' participation (not just attendance) and their achievement in summative assessments. Race (*op.cit.*, p.189) notes how exam performance "*worsened*" dramatically when the level of student attendance at lectures fell. He comments that poorly-performing students lacked academic rigour, since they viewed uploaded PowerPoint presentations rather than attending – "*during*" the lecture, as an active participant thinker, and "*after*", as a reader (Race used italics for emphasis). The focus of GIST was on students' active participation, rather than, simply, presenteeism – a distinction noted by Race. By helping students to identify their individual study skill needs, we hoped that they would not only

participate as thinkers during the lecture and be readers after it, but also have academic preparedness prior to lectures and seminars.

Overview of the GIST research methodology

Before the project commenced, ethical permission was sought and granted by the University and the project's overall methodology was a single case study (Yin, 2009; Stake, 2005). The structure of this case was a linear analysis as an opportunity to describe, explore and explain the issues found. Student contribution to the research was anonymised as a condition of ethical permission to proceed. Ethical permission was granted to access quantitative data – the overall assessment scores and attendance rates of the students – a process which involved looking at individual student data at the end of the project to gain an overall picture, but without identifying any individual student. As part of ethical permission, review points were planned, especially at the end of the module after summative grading, because students' feedback (even anonymised) could be influenced by the existence of inequitable power in the lecturer-student relationship, as the lecturer would mark and grade their assessments.

The methodology employed was a small-scale pilot case study locating the practitioner's ontological perspective as an insider of the University rather than an outsider to it (Hanson, 2013; Unluer, 2012). The project was heavily influenced by an approach that identified and valued the *process* of student learning and formative assessment *for* learning (Falchikov 2005; Sambell *et al.*, 2013). To a great extent, this process-valued approach is the antithesis of the prevailing management trends that tend to valorise measurable *outcomes* over process – a trend manifest by an assessment *of* learning that concentrates entirely on results and achievement statistics. This outcomes approach (established by New Public Management) can be exemplified by the practice of teaching and learning to the test with less emphasis on the learning *process*, which may not always be easily measured (Jaffee, 2012; Ashwin, 2017). A value underpinning the project was that attention to and development of a students' learning *processes*, rather than results and achievement (outcomes), are an essential scaffold for the co-production of knowledge.

The mechanism to measure the impact of the project relied upon qualitative and quantitative methods, through a) direct responses from students when they formally evaluated their experience via the quantitative module-evaluation questionnaire and b) through qualitative spoken or written feedback that tended to be more informal in nature. I also maintained a lecturer's narrative account of the project's processes, in the form of a research journal to support the case study project (Cumming, 2009, cited in McAlpine, 2016).

Overview of project implementation

The approach involved an initial consultation with the students to explain the participatory and interactive nature of 'students as co-producers of knowledge'. The project was explained to the students, with emphasis on the point that GIST had been designed to improve teaching and their learning experience – not to give them additional work, but to assist them in enjoying and owning their learning and so becoming co-producers of knowledge (Neary, 2010). To learn by means of discussion and engagement – during lectures as well as seminars – the students were encouraged to contribute, speak out and share thoughts and connections with their other modules.

A weekly lecture attendance register – taken because the University required registration only for seminars, not lectures – tracked both attendance and achievement. As mentioned above, I recorded – in a research journal – a narrative account of each session, so as to review my practice and thus to make my teaching more effective. (Cranfield (2016) identified such an approach as a process complementary to that of promoting student engagement.) The environment of a classroom cultivated – more readily than that of a lecture theatre – transactional adult-to-adult communication and a culture of democracy in both teaching and student learning (Berne, 1981; Brookfield and Preskill, 2005; Freire and Macedo, 1999).

Project implementation

i) The physical environment

The project aimed to create a proactive learning environment (Scrivener, 2012); achieving that entailed moving the timetabled lecture session from a lecture theatre to a classroom. That this allocated room had moveable desks was ideal for adjusting its physical environment to promote student interaction: small, forward-facing, horseshoe-shaped clusters around tables angled towards each other was a furniture layout that lent itself to student engagement, replicating the 'circle of voices' developed by Eduard Lindeman (Brookfield, 2015).

ii) Process

The timetable for seminars was arranged for four groups of ten students and one containing only four students, which was timed for a late Friday afternoon. This timetabling arrangement was an institutional legacy from a time when five seminar groups had to accommodate over ninety students undertaking the module.

At the beginning of the first seminar, three of the four students who had been allocated the Friday afternoon group reported that they could not attend at this time because two worked in catering and had employment every Friday and one had child care responsibilities and so was unable to stay for the whole hour. I thus distributed all four amongst the other seminar groups; in any case, a seminar group of four would probably have been too small for much peer learning/assessment and interaction to take place and might – with the inevitable feeling amongst the few participants of increased pressure – have inhibited contribution (Race, 2014). The Friday afternoon slot thus became available as an 'open workshop/tutorial/student-led seminar session' (now called GIST) and all were welcome to take advantage of it. Though not in the original project plan, this provision could be overtly framed as 'student-led' time – students might be persuaded to see the supported space as an opportunity to work on their assessments, query any problems they might have, unpick the grading criteria, align their assessments to the learning outcomes, question me and each other freely and share any other academic contribution that they thought would benefit the group. I thus encouraged them to meet each other as study buddies outside class time so that they could read and prepare for the seminar.

For the first three weeks of the module, no-one attended the Friday seminar, but I persisted in reminding students of it – at every opportunity: in the canteen, in the library and via e-mail and the virtual learning (VLE) environment, as well as during seminars and lectures. The timing of the Friday session was awkward for students who had employment and family

Case Studies

obligations to meet; such students also tend to belong to the widening participation cohort of learners (Harvey and Drew, with Smith, 2006). By week four, six students attended the session, two of whom had expressed concern regarding plagiarism and wanted to know more about its implications. From weeks seven to eleven, the session was made up of six or eight regular attenders (table 1) and, on the last Friday (the week before the end of the year), instead of lasting for one hour, it continued long after its scheduled end, with the students working together in pairs and threes in the computer room.

Week number	Number of students attending
1	0
2	0
3	0
4	6
5	6
6	6
7	6 plus 2 latecomers
8	8
9	8
10	8
11	8 plus 2 others, who dropped in

Table 1. Student attendance at the Friday sessions

The main concerns raised by students were conceptual discussions regarding the assessment essay topic (on the role of class, race and religion in education) and how this related to the grading criteria. The students initially felt that the grading criteria were difficult to unpick, but eventually said that they understood, after discussion with me and each other over the passing weeks (Falchikov, 2013) – particularly weeks 7-11. Students regularly asked and explained to each other how the module's learning outcomes related to the essay and, in turn, how the best grades involved analysis (rather than description). The class, during this peer summative assessment feedforward (Race, 2014; Carless, 2015), also scrutinised the importance of reference to academic sources.

The importance of student participation was reinforced frequently during lectures, where comments and thinking aloud were encouraged and welcomed and opportunities were given for raising issues and contributing additional resources that could be uploaded to the VLE using a 'student as researcher' model (Knight, 2002). For student mutual support, group work included peer assistance and idea-sharing as forms of formative learning. Following

Brookfield and Preskill's (2005) advice, students' reflections and contributions were referred to and built upon during lectures and seminars – either at the moment when the topic emerged or at the session's conclusion. I took care to accommodate quieter, more reserved students or those with additional learning needs, who might choose to maintain their own approach to their learning – such students were not coerced into the proactive, information-sharing, group dynamic.

Project evaluation

Being already familiar with the 'study buddy' mode of learning, the third-year students readily accepted it, whilst the second years, initially seeing it as a) an additional commitment they did not have time for and b) a threat to academic ownership of work, voiced concerns about workload management and plagiarism (the latter proved to be another topic that needed to be unpicked and resolved in both seminar and lecture environments).

Three reviews took place during the eleven-week project and students' contributions showed that they valued sharing a) advice on how to undertake internet searches for academic sources and b) additional journal articles for the seminar reading; they also offered me additional questions for inclusion in the reading pack. During the second review, one student made suggestions as to how to encourage other students to participate and gave constructive criticism about the fact that GIST, from his perspective, conflicted with other messages from the University. He identified a general lack of detailed guidance as to exactly how many references should be cited in an essay and, although he accepted the GIST ethos and practice (in which the student cites all the sources used), he was sure that he would, after this module, return to asking other lecturers what they required. When the module was finally evaluated after the summative graded assessment had taken place, students gave mainly positive feedback, including their satisfaction at: having made sense of grading criteria; feeling more confident about asking, if they were unsure of what they needed to do (Scott, 2017); and making connections in their thinking about their own life experiences and why they were at university. They reported being more confident about their use of referencing and how it fitted in with developing an argument. Some also felt that they could get to grips with what was required by the learning outcomes in a module (Biggs and Tang, 2011). A few students admitted to not enjoying reading or to avoiding it, but said that, as a result of sharing ideas with students who did read, they felt more confident that they too, could read academic journals in support of their studies (Kerr and Frese, 2017). Most felt that I had been responsive to their learning needs, though one student made it clear at the end-of-module evaluation that she had not been satisfied with my advice to find in a published source the answer to her questions and indicated that I should have answered her query directly.

Students were asked if they thought that the GIST project had assisted in building confidence and enhanced their academic skills. Their positive responses on their progress were borne out by their grades for the second assessment – due after week eleven – as they achieved a) higher grades than for the first essay submitted in week seven and b) higher grades compared with the previous year's cohort. After week seven, student attendance at seminar increased by twelve per cent. By this time, feedforward was not one-way, from lecturer to student, but a two-way or group dialogue that involved discussion – especially because the students had bonded as a group. The whole approach was underpinned by a teaching and learning ethos of equity, enabling co-production of

knowledge and learning as I had to be responsive to students' individual and group contributions. Students were seen by each other and by me as valid co-producers of knowledge who had been given the chance to have voice rather than rely solely upon the expertise of the lecturer (Healey, Flint and Harrington, 2016). As well as encouraging the development of peer student support, the role of the lecturer involved influencing students to be competitive with the system rather than with each other, viz. to develop a united response to a common challenge – in this case, understanding the grading criteria and meeting expected learning outcomes. To make their co-production more effective, the students wanted access to computers, to go through what they were working on in a manner that would place their outputs (rather than the tutor's inputs) at the centre of the class. Although the use of computers in seminar time had not been planned, what emerged from GIST was that students wanted the opportunity to make use of computers to research or continue with their second assessment essays. This was arranged during seminar time, when sessions took the form of workshop-style, multi-way communication rather than the one-sided style of the traditional lecture or seminar. The approach contained elements of the flipped classroom, whereby every student is reached (Bergmann and Sams, 2014).

The difficulty with comparing yearly lecture attendance was that only the current year's attendance had been monitored and recorded by the lecturer, as it was not a requirement by the University. It appeared to me that a greater number of students attended the 'lectures' that took place in the seminar and computer rooms than had in previous years attended the equivalent sessions in the lecture theatre. This unverified, anecdotal and subjective claim of course cannot be substantiated and it could be argued that lecture attendance improved merely because the students were aware it was being measured and that seminar attendance improved because the groups were smaller, not as a result of any enhanced learning experience. I nevertheless retain my impression of this possible positive impact of the project. Incidentally, changing seminar rooms, during the module, for computer access rooms incurred administrative disapproval on account of perceived disruption to institutional rooming and room-use priorities.

Throughout the eleven weeks, attendance at all seminars – when compared to that at other modules – increased by just under twenty per cent. Furthermore, student achievement for the eight regular attenders to the Friday seminar was a grade higher than their average. Evaluating the success of the project by grading and attendance mechanisms is problematic: these two measures may well be unsound success criteria because an increase or decrease in a student's grade level or attendance could be attributed to a whole range of extra-project variables, both structural and personal and arising from a range of such negative influences and difficulties as finance, bereavement, friendship/relationship breakdown, housing and personal issues.

Co-production and lecturer practice insights

A couple of challenges to my prior assumptions about teaching during the GIST project emerged from it:

1. My research journal noted an expectation that the students in the project would experience a *slight change* from passive to active listeners and learners (Bonwell, 2000) – an assumption **not** borne out by experience of the project, for the change

was not 'slight' for them. I underestimated the impact of what proved to be a seismic shift in their learning habits and style.

2. My expectation that my deliberate attempt to minimise the power dynamic and devolve power to the students, by describing myself to them as a 'facilitator', instead of 'lecturer', turned out to be naïve. Paulo Freire considers that calling yourself a facilitator is "*a deceitful discourse*", whereby teachers are denying the pre-existing power dynamic between them and their students and, he says, it is more "*truthful*" to acknowledge the power dynamic so that it may be addressed (Freire and Macedo 1999, p.47). During the GIST project, the issue of power within the lecturer/student relationship was acknowledged, but not fully resolved. This particular challenge to practice could be further developed and acted upon by means of an action research methodology involving students (Papadopoulou, 2011).

Conclusion

At the time of this project, active learning techniques and the practice of co-production were not clearly conceptualised, but a mish-mash of experimental teaching – of what 'felt right' in listening and responding to students' academic needs at the time. Methodologically, the single case study approach had some resonance with action research (Kinsler, 2010). What did happen was that feedforward became a two-way dialogue during formative assessments and involved tutor responsiveness alongside the development of peer support (Carless, 2015). Peer support changed relationships between students, since, as previously mentioned, they re-directed their previously competitive behaviour towards each other by joining forces to compete against the system – in this case, the grading criteria. Rather than viewing the class as a place for *inputs* by the teacher, they sought access to computers to place at the heart of the class the *outputs* of what they were working on. The resulting workshop-style, two-way communication and associated active learning (quite unlike the traditional nature of a lecture or seminar) enhanced the students' experience – their confidence improved and, subsequently, so too did their grades. The whole approach was underpinned by a teaching and learning ethos of equity that enabled a co-production of knowledge and learning. The GIST project may have emerged from my social policy discipline perspective, but it is fair to say that the implications for practice, co-production and active learning techniques are worthy pedagogic practices that can transcend academic discipline boundaries.

After note and implications for future practice and research

Since the original case involving the forty-four students, as detailed in this article, a further refinement of the pedagogy took place in another HE institution, where GIST was established through the emergence of the workshop ethos of student-led teaching and learning. The GIST technique has also been shared with other colleagues who listen to what the students identify as their learning needs, which tend towards the essentially feedforward-based learning activities that enable formative assessment. At Christ Church Canterbury University, GIST has yielded further positive results when compared to similar cohorts in previous years which were taught in a didactic lecture and lecturer-led seminar manner. The active learning was termed 'guided individual student time', because this best described what emerged during the original case study and has subsequently been developed, using in particular an action research methodology to involve both students and lecturers, working together in GIST workshops... but that is for another paper.

Reference list

Ashwin, P. (2017) 'What is the Teaching Excellence Framework in the United Kingdom, and will it work?' *International Higher Education*, 88, 10-11. Available at: <https://ejournals.bc.edu/index.php/ihe/article/view/9683/8557> (Accessed: 05 March 2020).

Bergmann, J. and Sams, A. (2014) *Flipped Learning: Gateway to Student Engagement*. Washington, DC: International Society for Technology in Education. ISBN: 9781564845405

Berne, E. (2001) *Transactional Analysis in Psychotherapy*. London: Souvenir Press Ltd. ISBN: 0285647768

Biggs, J. and Tang, C. (2011) *Teaching for Quality Learning at University: What the student does*. (4th Edition). Maidenhead: Open University Press/SRHE. ISBN: 0335242758

Bonwell, C. (2000) *Active Learning: Creating Excitement in the Classroom*. Available at: https://www.asec.purdue.edu/lct/HBCU/documents/Active_Learning_Creating_Excitement_in_the_Classroom.pdf (Accessed: 08 March 2020).

Brookfield, S.D. and Preskill, S. (2005) *Discussion as a Way of Teaching: Tools and Techniques for Democratic Classrooms*. San Francisco: Jossey-Bass. ISBN: 9780787978082

Brookfield, S. (2015) *The Skillful Teacher On Technique, Trust, and Responsiveness in the Classroom*. (3rd Edition). San Francisco: Jossey-Bass, John Wiley & Sons. ISBN: 9781118450291

Bryson, C., Furlong, R. and Rinaldo-Langridge, F. (2015) *A Critical Consideration of, and Research Agenda for, the Approach of "Students as Partners"*. Proceedings of 40th International Conference on Improving University Teaching, Faculty of Law, University of Ljubljana, Ljubljana, Slovenia, 15-17 July 2015. Available at: https://www.iutconference.com/wp-content/uploads/2016/01/Bryson_Paper_IUT2015.pdf (Accessed: 08 March 2020).

Carless, D. (2015) *Excellence in University Assessment: Learning from award-winning Practice*. Oxford: Routledge. ISBN: 1138824550

Cranfield, S. (2016) 'Teaching by Leading and Managing Learning Environments.' In: Pokorny, H. and Warren, D. (eds.) *Enhancing Teaching Practice in Higher Education* (Chapter 3). London: Sage. ISBN: 1446202852

Falchikov, N. (2005) *Improving Assessment Through Student Involvement: Practical solutions for aiding learning in higher and further education*. Abingdon: Routledge Farmer. ISBN: 0415308216

Freire, P. and Macedo, D.P. (1999) 'Pedagogy, Culture, Language, and Race: A Dialogue.' In: Leach, J. and Moon, B. (eds.) *Learners and Pedagogy*. London: The Open University Press. ISBN: 1853964298

Hanson, J. (2013) 'Educational developers as researchers: the contribution of insider research to enhancing understanding of role, identity and practice.' *Innovations in Education*

Case Studies

and *Teaching International*, 50(4), 388-398. Available at: <https://www.tandfonline.com/doi/full/10.1080/14703297.2013.806220> (Accessed: 07 March 2020).

Harvey, L., Drew, S. and Smith, M. (2006) *The first-year experience: A literature review for the Higher Education Academy*. York: HEA. Available at: <https://www.qualityresearchinternational.com/Harvey%20papers/Harvey%20and%20Drew%202006.pdf> (Accessed: 07 March 2020).

Healey, M., Flint, A. and Harrington, K. (2016) 'Students as partners: Reflections on a conceptual model.' *Teaching & Learning Inquiry*, 4(2). Available at: <https://journalhosting.ucalgary.ca/index.php/TLI/article/view/57438/43207> (Accessed: 07 March 2020).

HEQC (1996) *Graduate Standard Programme*. London: Higher Education Quality Council. ISBN: 1 85824 367 X

Jaffee, D. (2012) 'Stop Telling Students to Study for Exams.' *The Chronicle Of Higher Education*. Available at: <http://www.chronicle.com/article/Stop-Telling-Students-to-Study/131622> (Accessed: 08 March 2020).

Jaschik, S. (2018) 'Lecture Instruction: Alive and Not So Well.' *Inside Higher Ed*. Available at: <https://www.insidehighered.com/news/2018/04/02/study-finds-lecture-remains-dominant-form-teaching-stem> (Accessed: 03 November 2019).

Kerr, M.M. and Frese, K.M. (2017) 'Reading to Learn or Learning to Read? Engaging College Students in Course Readings.' *College Teaching*, 65(1), 28-31. Available at: <https://www.tandfonline.com/doi/full/10.1080/87567555.2016.1222577> (Accessed: 07 March 2020).

Kinsler, K. (2010) 'The Utility of Educational Action Research for Emancipatory Change.' *Action Research* 8(2), 171-189. Available at: <https://journals.sagepub.com/doi/pdf/10.1177/1476750309351357> (Accessed: 08 March 2020).

Knight, P. (2002) *Being a Teacher in Higher Education*. Buckingham: Society for Research into Higher Education and Open University Press. ISBN: 0335209300

Leach, J. and Moon, B (2000) 'Pedagogy, information and communications technology and teachers' professional knowledge.' *The Curriculum Journal*, 11(3), 385-404. Available at: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.460.954&rep=rep1&type=pdf> (Accessed: 08 March 2020).

Leach, J. and Moon, B. (2008) *The Power of Pedagogy*. London: Sage. ISBN: 9781412907231

McAlpine, L (2016) 'Why might you use narrative methodology? A story about narrative.' *Estonian Journal of Education*, 4(1), 32-57. Available at: http://eha.ut.ee/wp-content/uploads/2016/04/6_02b_alpine.pdf (Accessed: 08 March 2020).

Case Studies

Neary, M. (2010) *Student as Producer 2010–2013*. Available at: <http://studentasproducer.lincoln.ac.uk/> (Accessed 08 March 2020).

Nicol, D.J. and Macfarlane-Dick, D. (2006) 'Formative assessment and self-regulated learning: A model and seven principles of good feedback practice.' *Studies in Higher Education*, 31(2), 199-218. Available at: https://www.reap.ac.uk/reap/public/Papers/DN_SHE_Final.pdf (Accessed: 08 March 2020).

Papadopoulou, M. (2011) 'The authority of personal knowledge in the development of critical thinking – a pedagogy of self-reflection.' *Enhancing Learning in the Social Sciences*, 3(3), 1-23. Available at: <https://www.tandfonline.com/doi/pdf/10.11120/elss.2011.03030012?needAccess=true> (Accessed: 08 March 2020).

Pokorny, H. (2016) 'Assessment for Learning.' (Chapter 4.) In: Pokorny, H. and Warren, D. (eds.) *Enhancing Teaching Practice in Higher Education*, London: Sage. ISBN: 1446202852

Race, P. (2014) *Making Learning Happen: A Guide for Post-Compulsory Education*. London: Sage. ISBN: 1446285960

Sambell, K., McDowell, L. and Montgomery, C. (2013) *Assessment for Learning in Higher Education*. London: Routledge. ISBN: 0415586585

Scott, G.W. (2017) 'Active engagement with assessment and feedback can improve group-work outcomes and boost student confidence.' *Higher Education Pedagogies*, 2(1), 1-13. Available at: <https://www.tandfonline.com/doi/pdf/10.1080/23752696.2017.1307692?needAccess=true> (Accessed: 08 March 2020).

Scrivener, J. (2012) *Classroom Management Techniques*. Cambridge: Cambridge University Press. ISBN: 0521741858

Stake, R.E. (2005) 'Qualitative case studies.' In: Denzin, N.K., and Lincoln, Y.S. (eds.) *The Sage handbook of qualitative research* (3rd Edition). Thousand Oaks, CA: Sage. ISBN: 0761927573

Unluer, S. (2012) 'Being an Insider Researcher While Conducting Case Study Research.' *The Qualitative Report* 2012, 17(58), 1-14. Available at: <https://nsuworks.nova.edu/cgi/viewcontent.cgi?article=1752&context=tqr> (Accessed: 08 March 2020).

Yin, R.K. (2009) *Case Study Research Design and Methods* (4th edition). London: Sage. ISBN: 1412960991