Editorial: BERJ 50th Anniversary Collection: Virtual issue 1995 to 2004

Having conducted an analysis of the *British Educational Research Journal*'s (*BERJ*) sister journal, the *British Journal of Educational Technology* (*BJET*) for their recent 50th anniversary (Bond et al., 2019), it was a delight to be asked to also prepare a virtual issue for the BERJ 50th anniversary, for the period from 1995 to 2004. During this time, no less than 378 articles were published across 53 issues (see Table 1), not including editorials, book reviews or review essays. In order to provide a deeper analysis of this period, and to identify seminal articles published in *BERJ* during this decade for publication in this virtual issue, an authorship and content analysis was conducted, following the same method as Bond et al. (2019).

Table 1: Number of research articles published in BERJ by year in the sample

Year	Volume	Issues	Articles
1995	21	5	41
1996	22	5	36
1997	23	5	38
1998	24	5	33
1999	25	5	36
2000	26	5	34
2001	27	5	33
2002	28	6	42
2003	29	6	48
2004	30	6	38

Sample and Method

Authorship analysis

In order to provide an informed overview of the authorship of articles published in BERJ during this period, all research articles published in *BERJ* between 1995 and 2004 ($n = 378$) were exported from the Web of Science (WoS) and imported into EPPI-Reviewer evidence synthesis software (Thomas et al., 2023). Unfortunately, many of the earlier volumes from the 1990s have not yet been indexed in the WoS, and so articles were manually added into EPPI-Reviewer by cross-referencing with the BERJ website. Subsets of data were created based on two five-year periods: 1995-1999 ($n = 183$) and 2000-2004 ($n = 195$). Articles were then manually coded within EPPI-Reviewer for the year, number of authors, gender of the first author, type of research collaboration (domestic, international or both domestic and international) and country of affiliation of all authors (see https://eppi.ioe.ac.uk/eppi-vis/login/open?webdbid=307 for an openly accessible database of all coding and metadata). Where the information was not provided within the article, or accessible publicly via an internet search, the code 'Unknown' was given.

Computer-assisted content analysis

With a view to synthesise the articles published during this decade, and to identify key research topics during this period, the software Leximancer was used to conduct a computer-assisted content analysis. This method has grown in popularity over the past decade (e.g., Fisk et al., 2012), but especially in the last five years in the field of educational technology, with a number of journal content analyses being conducted, e.g., *International Journal of Educational Technology in Higher Education* (Marín et al., 2018), *Australasian Journal of Educational Technology* (Bond, 2018; Bond & Buntins, 2018), and *Computers & Education* (Zawacki-Richter & Latchem, 2018). Leximancer has also been used to gain insight into specific phenomena, e.g., teaching and learning during the COVID-19 pandemic (Bond, 2020) and social media research (Bozkurt, 2022).

For the purposes of this special issue, the titles and abstracts of all research articles ($n = 378$) published in *BERJ* from 1995 to 2004 were converted into a .csv file in Excel and imported into Leximancer. Where abstracts were not provided on the *BERJ* website, the first paragraph was included. Stop words that were removed were 'based', 'paper', 'results', 'recent', 'use', 'used', 'article', 'particular', 'findings', 'authors' and 'young', and the following singular and plural terms were merged: 'school' and 'schools', 'teacher' and 'teachers', 'group' and 'groups', 'experience' and 'experiences', 'study' and 'studies', and 'process' and 'processes'. Significant concepts and themes occurring within two sentence blocks were then automatically identified by Leximancer, producing concept maps (with a theme size of 50%) that show the frequency and connectedness of identified concepts (Smith & Humphreys, 2006). These concept maps were then analysed, with interpretations drawn through cross-checking between the maps and the articles themselves (Harwood et al., 2015). Representative articles were then chosen, based on the key themes identified.

Results and discussion

Authorship analysis

Almost half of all articles published during this period ($n = 180$, 47.6%) were solo authored (see Fig. 1), with the number of multi-authored studies rising in the 2000-2004 period, particularly for articles with two (31.8%) or three (17.4%) authors. Whilst there were some instances where the first author gender was not able to be determined, there were slightly more male authors in the 1995-1999 period (50.8% male, 40.4% female), with numbers achieving balance in the 2000-2004 period (47.7% male, 48.2% female).
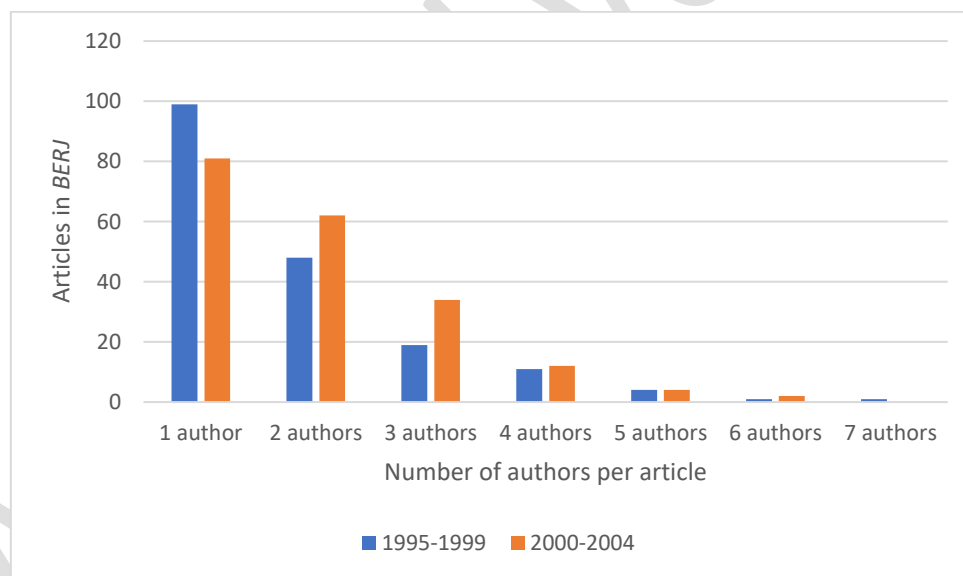

Figure 1: Number of authors per article published in 1995-2004 (n = 378 articles)

2000-2004 saw an increase in the number of authors from countries outside UK institutions, with 17 countries represented, as opposed to 10 between 1995-1999 (see Appendix A). In particular, there was an increase in authors from North America and Europe, although this period also saw two studies by authors from Asia, with Moore et al. (2002) exploring school teacher identity during educational reform, and Wong et al. (2002) examining gender differences in educational achievement in Hong Kong. This echoes the authorship trends found within other journal analyses, including *BJET* (Bond et al., 2019) and *AJET* (Bond, 2018).

Despite the slight increase in authorship internationality, there was an increase in the number of domestic (same country) research collaborations in the 2000-2004 period (52% as opposed to 43% in 1995-1999), which perhaps reflects the contextually bounded nature of educational research (Hicks,

1999; Knaupp et al., 2014). Authors preferred to work within their own institution when working with others from their own country (64% of domestically authored articles, see Appendix B), although there was slightly more inter-institutional collaboration domestically when international partners were involved (33% of articles authored by researchers within the same country as well as another one, as opposed to 24% of articles that were authored within the same country).

Overall scope of BERJ (1995-2004)

The key themes and research areas found in research articles (*n* = 378) published in *BERJ* across the decade 1995-2004 are depicted in Figure 2. The thematic summary reveals that *school* has the most direct mentions with 469 (100% relative count), followed by *research* (78% connectivity), *teachers* (54%), *knowledge* (16%) and *boys* (13%). This strong focus on schooling (both *primary-school* and *secondary-school* are connected in the map), was commented on in a 2003 special issue (Gorard & Taylor, 2003) and is also supported by the presence of only 24 articles with 'higher education' in their title and abstract, and only 13 articles with 'further education', despite the appearance of *further-education* in the 1995-1999 concept map (see Fig. 3).
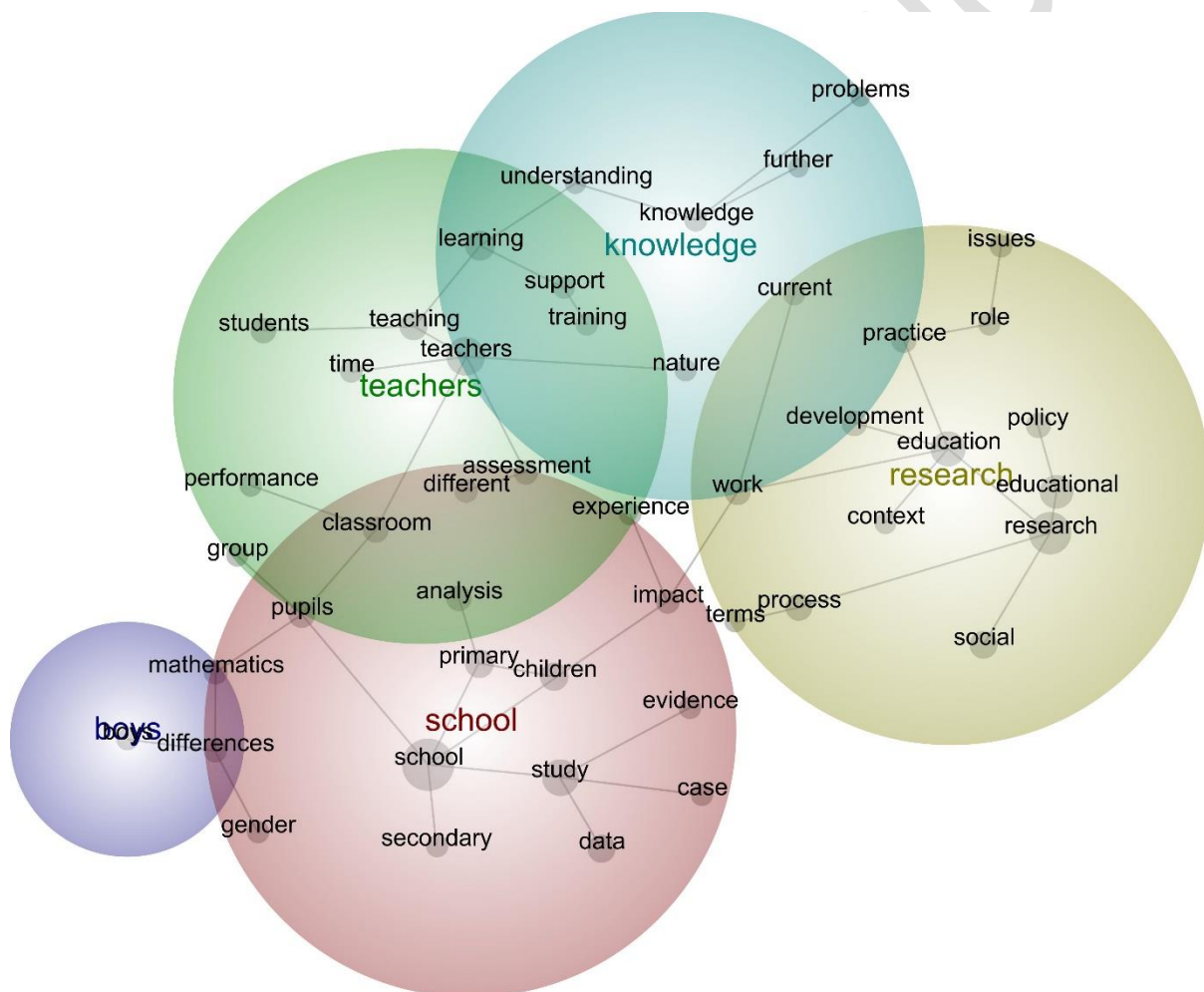

Figure 2: Concept map for BERJ articles published 1995-2004 (n = 378 articles)

The concept map shows that *BERJ* published research in this decade focused on supporting teaching and learning (see *training-support-learning-teaching-teachers*), particularly in regard to initial teacher education (see *nature-teachers-training-learning-support*). Research also focused on student assessment and evaluation (see *evidence-study-school-pupils-classroom-performance* and *analysis-primary-school-study-data*), with a focus on gender differences (see *gender-differences-mathematics-pupils*), and although it was not found in the first decade of *BERJ* publications (Gorard, See, & Siddiqui,

2022), this period saw a large and lively conversation around the nature and role of educational research - and in particular evidence synthesis - on educational policy (see *social-research-educational-policy* and *issues-role-practice-education-research-educational-policy*).

BERJ articles 1995-1999

In the five-year period from 1995-1999, the most direct mention was *school* (*n* = 212, 100%), followed by *research* (79% connectivity), *learning* (25%), *analysis* (21%), *practice* (17%), *implications* (15%) and *differences* (12%) (see Fig. 3). Research explored initial teacher education and teacher experiences within the classroom (see *training-experience-school-class-teachers*), with a particular focus on primary year levels and mathematics (see *mathematics-primary-school-classroom-children-pupils*). This period also saw a rise in discussion on the role and ethics of educational research and its implications for practice and policy (see *research-education-policy-implications*, and *nature-education-research-social-role*, e.g., Simons, 1995).
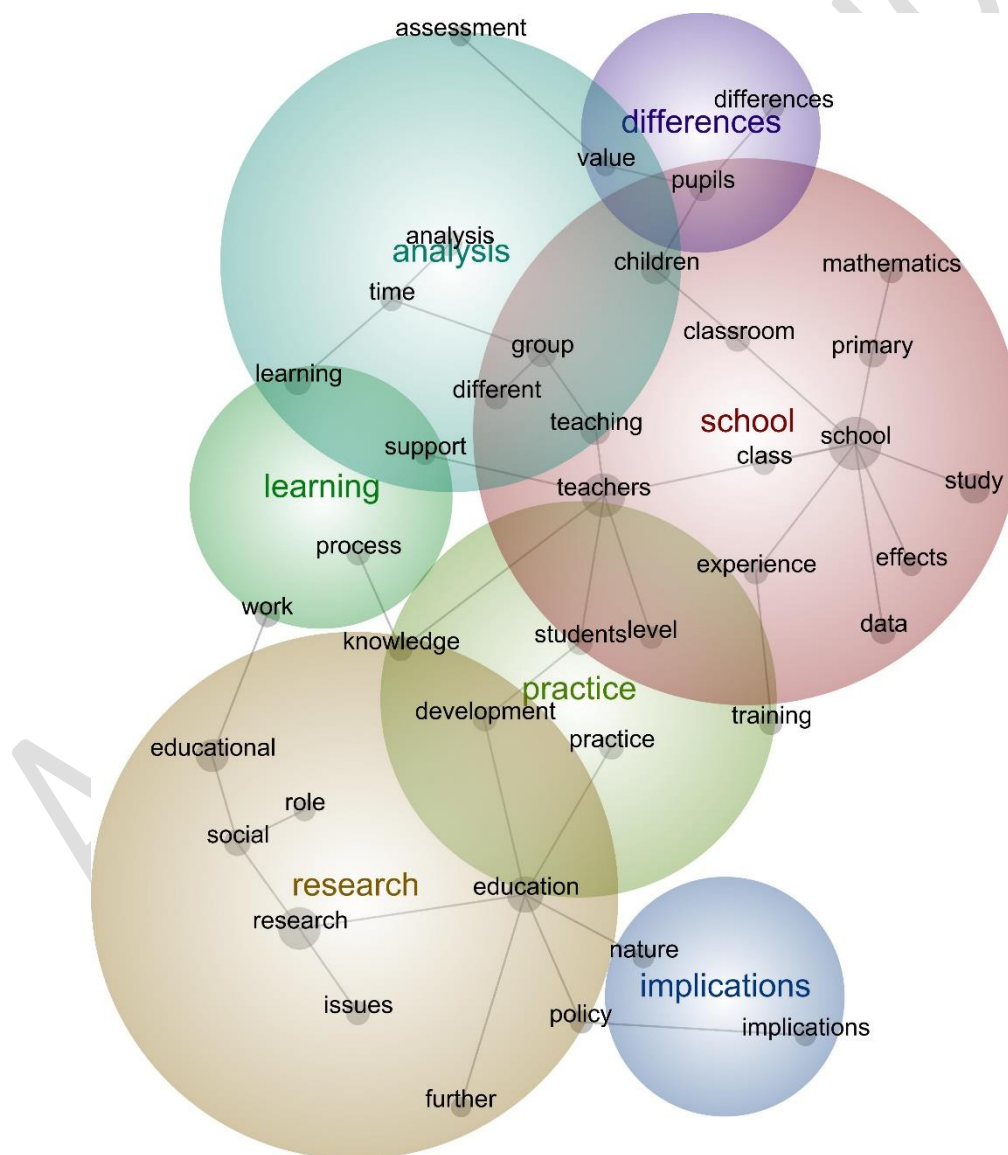

Figure 3: Concept map for BERJ articles published 1995-1999 (n = 184 articles)

BERJ articles 2000-2004

The five-year period 2000-2004 saw *BERJ* publications increasingly focused on the role and nature of research (see Fig. 4, *issues-education-research-practice*), alongside the knowledge and support of teachers, with *school* still having the most direct mentions (*n* = 240, 100%), followed by *research* (83% connectivity), *teachers* (51%), *students* (28%) and *boys* (16%). Articles during this period continued to focus on teacher knowledge and understanding, and how this could be fostered (see *understanding-knowledge-teachers-support*), as well as a focus on mathematics understanding and assessment (see *school-study-analysis-pupils-experiences-students-mathematics-achievment*). Whilst gender was explored in the previous period (e.g., Jacklin & Lacey, 1997), there is a larger emphasis here on the performance of boys in the classroom (see *school-difference-boys* and *boys-difference-performance*, e.g., Myhill, 2002).
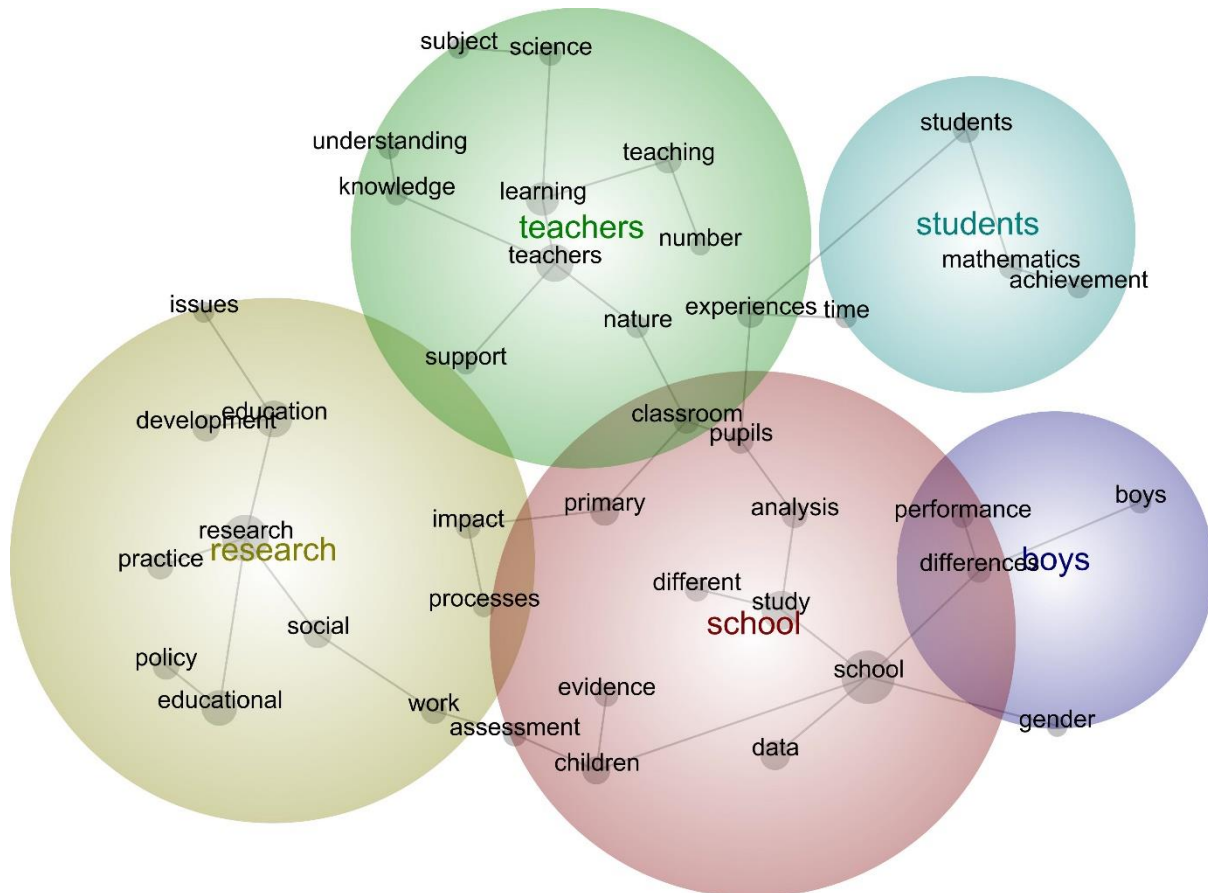

Figure 4: Concept map for BERJ articles published 2000-2004 (n = 195 articles)

Selected papers

The articles selected for this virtual special issue were therefore chosen as being representative of the key themes explored during this decade; initial teacher education and teacher knowledge, assessment and analysing data, mathematics and gender differences, and the nature, scope and impact of educational research, policy and practice. However, they were also chosen as they continue to have relevance to educational research today, and perhaps revisiting these articles can help further stimulate and push conversation around these topics forward.

Initial teacher education and teacher knowledge

The first article in this special issue saw McNamara et al. (2002) liken initial teacher education (ITE) to a rite of passage, exploring the "ordeal" of the Numeracy Skills Test with pre-service teachers at

Manchester Metropolitan University. Not only is this an interesting and thought-provoking exploration of ITE student identity, but it also speaks to more recent international policy trends in order to improve teacher 'quality', such as the 2016 introduction of the Literacy and Numeracy Test for Initial Teacher Education (LANTITE) in Australia (Barnes & Cross, 2020). Studies that have since begun exploring pre-service teacher (PST) experiences of LANTITE (e.g., Barnes, 2021; Hilton et al., 2020) echo the sentiments captured by McNamara et al. (2002) about the impact of high-stakes exams on student well-being and their (in)ability to accurately capture PST competence.

Building upon the first article, the second article (Edwards & Protheroe, 2003) focuses on ITE experiences within primary English and Maths classrooms. This case study of primary school PSTs and their mentor teachers explores how student teachers develop their professional knowledge, as well as how they are supported by their mentors to do so. The findings reflect the pressure that teachers are placed under to cover curriculum expectations, as well as a need for mentor teachers to provide more active guidance in introducing PSTs to their community of practice. Given the ITE and ECT changes that have since started occurring in England (Department for Education, 2019), perhaps these articles serve as a timely reminder, to both the UK and other countries like Australia, to reflect upon – and learn from – past experiences, as well as our understanding of teacher quality (Brooks, 2021).

Assessment and analysing data

Considering the notion and assessment of teacher quality, the third article by Goldstein (2001) reviews how performance data came to be used within education in England and Wales and considers how reliable these data are for the assessment of teachers and schools; a debate that continues both in the UK (e.g., Merrell, 2017) and internationally (e.g., Rose et al., 2018). The fourth article (Reay & William, 1999) explores Year 6 students' self-concept as learners, prior to undertaking National Curriculum Key Stage 2 testing (SATs). It brings much needed attention to student perspectives about their identities and agency in the assessment process, as student voice in educational research continues to be less researched in some areas (e.g., Bond, 2020). Despite these students suggesting that the SATs were primarily to gauge teacher performance, they expressed worry that the results would heavily impact on their future education and career prospects. Although recent research (Jerrim, 2022) has found no clear relationship between test anxiety and GCSE exam performance using 2015 PISA data, a link has been found between high-stakes testing and self-reported school-related stress, including health and well-being and school climate (e.g., Högberg & Horn, 2022). Given that the school data for Key Stage 2 assessments will again be publicly assessable online for the 2022/23 academic year (Standards & Testing Agency, 2022), further exploration of the impact on students using such qualitative approaches as Reay and William (1999) might be timely.

Mathematics and Gender differences

In the fifth article, Haggarty and Pepin (2002) investigated the similarities and differences between Mathematics textbooks at lower secondary level in England, France and Germany, as well as how teachers were using the textbooks in their classrooms. Here the authors found a depth of language and connection to real world application in the French and German texts, missing from the English books, as well as a concerning lack of access to textbooks for students in lower secondary years in England. The utility and use of textbooks in Mathematics continues to be a much-researched subject around the world, with recent studies in Sweden (Norberg, 2022), Kenya (Otieno & Povey, 2022), Serbia (Randjelovic et al., 2022), China and England (Wang & Fan, 2021) indicating that further work is needed on improving the quality and accessibility of textbooks to encourage self-regulated and deep learning, alongside mathematical creativity.

The sixth article (Lamb, 1996) explores gender differences in Mathematics participation in Australian secondary schools, suggesting that school policy and social background play a role. In a similar vein, the seventh article by Clegg and Trayhurn (1999), investigated the reasons why first year higher

education Computing students chose to study IT, exploring gendered ideas of what is considered 'real' computing work and who should be considered as suitable for the field. This remains a highly relevant topic today, with continued issues of gender stereotypes and gender identity impacting subject and career choices for women, particularly in STEM (Law, 2018; Master et al., 2021; Serenko & Turel, 2021). Although a number of projects are increasingly in place around the world to raise the profile of STEM education and careers for girls and women, such as in Spain (Davila dos Santos et al., 2022) and Australia (Australian Academy of Science, 2019; UniSA, 2022), disparities still exist, with further concerted efforts needed to help positively influence girls' self-concept, self-efficacy and participation.

Educational research, policy and practice

BERJ has been an excellent venue for rich debate about the nature, scope and robustness of educational research throughout its almost 50-year history and the 1995-2004 decade saw a debate heat up on the appropriateness of evidence-based education and the increasing use of evidence synthesis methods to inform policy and practice. The article by Evans and Benefield (2001) explores this debate and presents the first systematic review undertaken by the National Foundation for Educational Research, in partnership with the EPPI-Centre, on interventions to support primary school students with emotional and behavioural difficulties in mainstream schools. The authors discuss the difficulties that exist in searching for education research, including which databases are the most appropriate for capturing pertinent literature, which continues to be an issue today (see Gusenbauer & Haddaway, 2019). 20 years on, we are starting to see the development of education specific repositories for systematic reviews (e.g., *International Database of Education Systematic Reviews*, Chalmers et al., 2023), as well as an increase in guidance on conducting them in our field (e.g., Alexander, 2020). However, despite Evans and Benefield (2001) stressing the need for the clear and transparent reporting of research question(s), inclusion and exclusion criteria, as well conducting a quality assessment when conducting systematic reviews, there are still continued issues of methodological rigor in the reporting of evidence syntheses (e.g., Gusenbauer, 2021). It will be exciting to continue to see the development of evidence synthesis methods in the field of education in the years to come.

The final two articles in this special issue are both presidential addresses given at BERA conferences. Mortimore (2000) asked what the successes and failures of educational research are, why it matters, and how we can enhance its value; all questions that are timely to reconsider as *BERJ* approaches its 50th anniversary. He also suggested that we should be asking difficult questions, demanding evidence, generating new knowledge, formulating new theories, and speaking up for what we believe is right. Likewise, Furlong (2004) reflected on 30 years of BERA and argued that we need to embrace diversity in our research community, promote dialogue, and increase quality. In particular, he stressed the importance of working collaboratively as a community, and to consider taking Foucault's (1979) words as BERA's motto until 2034; "there are different truths and different ways of speaking the truth" (p. 51). It is up to us now to continue embracing the richness of our community and to continue supporting each other to find and speak our own research truths.

I hope you enjoy reading this special issue.

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Appendix A

***BERJ* Authorship by country affiliation, 1995-1999**

Rank	Country	Region	Number of Articles	Percentage
1	UK	Europe	170	92.9%
2	Australia	Oceania	6	3.3%
3	Israel	Middle East	4	2.2%
4	Cyprus	Europe	2	1.1%
5	Malta	Europe	1	0.5%
=	Netherlands	Europe	1	0.5%
=	Russia	Europe	1	0.5%
=	Finland	Europe	1	0.5%
=	Greece	Europe	1	0.5%
=	Canada	North America	1	0.5%
=	Mexico	South & Central America	1	0.5%

***BERJ* Authorship by country affiliation, 2000-2004**

Rank	Country	Region	Number of Articles	Percentage
1	UK	Europe	174	89.2%
2	Australia	Oceania	7	3.6%
3	Netherlands	Europe	4	2.1%
4	USA	North America	3	1.5%
5	Belgium	Europe	2	1.0%
=	Sweden	Europe	2	1.0%
=	Russia	Europe	2	1.0%
=	Hong Kong	Asia	2	1.0%
6	Malta	Europe	1	0.5%
=	Norway	Europe	1	0.5%
=	Cyprus	Europe	1	0.5%
=	Finland	Europe	1	0.5%
=	Portugal	Europe	1	0.5%
=	Brazil	South & Central America	1	0.5%
=	Greece	Europe	1	0.5%
=	Canada	North America	1	0.5%
=	Israel	Middle East	1	0.5%
=	Ireland	Europe	1	0.5%

Appendix B

BERJ author research collaboration, 1995-1999

Type of collaboration	Domestic only n = 78	Domestic & int. n = 3	International only n = 3
Intra-institutional	59	2	N/A
Inter-institutional	8	1	3
Intra and inter-institutional	11	0	N/A

BERJ author research collaboration, 2000-2004

Type of collaboration	Domestic only n = 102	Domestic & int. n = 9	International only n = 3
Intra-institutional	65	5	N/A
Inter-institutional	24	3	3
Intra and inter-institutional	13	1	N/A