

Bibliometric Analysis of Research Trends Regarding School Librarianship and Leveled Reading
Within Library and Information Science Publications

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Abstract

This study examines the publishing trends over the last twenty years regarding elementary school libraries, leveled reading, self-selected reading and free choice reading. Databases in library science and education were searched using basic keyword subject searches and parameters were set to exclude non-relevant articles. The results were collated and analyzed to determine the research trends.

Keywords: bibliometrics, elementary school library, self-selected reading, free choice reading, leveled reading, Accelerated Reader.

Bibliometric Analysis of Research Trends Regarding School Librarianship and Leveled Reading Within Library and Information Science Publications

Elementary school librarians are faced with the sometimes-conflicting tasks of encouraging students to read for pleasure and assisting teachers who wish to increase functional literacy as proven by standardized testing. This leaves the librarian with a conundrum of how to best serve the patron (student)- does the librarian steer the patron towards book choices based on genre, academic cache, or leveling or does the librarian encourage free choice in book selection? School librarians are often at the mercy of decisions made by administrators and teachers who have been pressured through large scale movements like the No Child Left Behind Act to improve functional literacy as provable by standardized testing. These policies can lead to a focus on leveled reading and reading specific types of books that spill over from the classroom into library policy.

Librarians who have evidence-based research to back up their decisions on circulation norms will be more prepared to have a conversation around policy with school faculty and staff.

Academic research on the topic can guide librarians and influence their decisions about checkout norms within the elementary school library setting and help them educate school faculty about best practices. This has the potential to create a ripple effect of trends in the world of school librarianship. Therefore, it will be useful for school librarians to know what research has been done and what trends can be found in the results of said research. Understanding the trends in research on school librarianship, and specifically about guided versus free choice reading over the past twenty years can help the school librarian better see where the trends are heading and what is viewed as the current best practice.

Research Questions

This bibliometric research study was conducted in order to discover trends in academic journal articles on library and information science about issues within elementary school librarianship over the last twenty years. Specifically, research articles about the topics of guided or leveled reading and free choice reading have been studied.

Research Question 1

What research is available that looks at the research trends and bibliometrics on school librarianship in the past twenty years?

Research Question 2

How much research conducted in between 1998-2019 is on the topics of leveled reading, guided reading selection, and free choice reading?

Research Question 3

Who is publishing the research on the subject? Which journals or institutions are producing the most research about school librarianship, and specifically guided and leveled reading compared to free choice reading?

Limitations/Delimitations

Research conducted between 1999 and 2019 has been studied. This study focused on the bibliometric analysis of research on elementary school libraries within Library and Information Science journals. The study focused on the results of highly cited articles about leveled reading and free choice reading in school libraries over the past twenty years. Articles that look at the effects of public library usage on children's reading habits have been excluded, as the study is limited to research on elementary aged students and centralized school libraries. The following databases were searched for this bibliometric analysis: Academic Search Premier, Education

Source, ERIC, Information Science & Technology Abstracts (ISTA), Library & Information Science Source, Library, Information Science & Technology Abstracts, Middle Search Plus, Primary Search, Teacher Reference Center.

Definitions

Leveled Reading - “The process of creating progressions of texts of gradually increasing difficulty” using readability formulas. Leveled reading comprehension is typically evaluated using quizzes on text content (Kontovourki, 2012).

Accelerated Reader (AR)- A commercially available leveled reading program commonly used in American public schools. The program determines the readability of books, assigns points based on book length, and provides quizzes on select titles.

Assumptions

The study assumes that the research databases and citation analysis tools being utilized are complete and accurate in their search results. The study also assumes that the citation of a study implies the usage of said study in the citing article.

Literature Review

Review of Topically Related Research

Steven Krashen is a foremost scholar on childhood literacy intervention, the effects of leveled reading and the effects of self-selected reading on student motivation and ability. His numerous articles published over the last thirty years are the most frequently cited on the subject. His work is essential to current understandings of reading intervention, leveled reading, and self-selected reading.

Accelerated Reader: Evidence Still Lacking (2005) is one of several articles written by Krashen over the years. This article looks at four studies on the effects of the Accelerated Reader program on student performance. The article states that Accelerated Reader has four components, interesting books, an hour to read each day, quizzes, and points. According to Krashen, evidence shows that the first two components have a strong and direct correlation with increased literacy skills, but the quizzes and points have not been verified as having a positive effect on reading motivation or skill. The Johnson and Howard study in Krashen's discussions showed that "high users" gained 2.24 years on reading scores, "average users" showed gains of 1.52, and "low users" had gains of 0.74 years. The important thing to note is that 52% of the group studied were "low users" and therefore Accelerated Reader did not increase literacy levels significantly in over half of the users (Krashen, 2005).

In this article, Krashen is re-affirming his position on the lack of scientifically sound data showing significant gains in literacy skills for students who use the Accelerated Reader program. His research is thorough and his position sound but again, his interpretation of the data is highly biased towards seeing little positive effect from the use of Accelerated Reader. His main claim in this particular article, which can be found throughout his research, is that any positive effects seen in the use of Accelerated Reader cannot be separated from the simple acts of giving kids access to books and time to read them (2005).

In 2009, Krashen published another article in KnowledgeQuest. Krashen looks at trends in education over the past twenty years as they relate to literacy education. He observes that one school district in Idaho, for instance, began teaching chess to their students in an effort to improve literacy scores. This was based on the results of a single study of 27 students in New York that once the six outliers of the study are excluded was not statistically significant. Krashen

points to other methods such as roller skating, Latin instruction, and physical education as ways people have tried to improve reading scores in schools. He then asks why “the obvious, most pleasant, least expensive way to improve reading ability- providing readers with interesting, comprehensive reading material- appears to not only be the last resort but is often never even mentioned,” (Krashen, 2009).

Krashen has been steadfast in his view that children need access to a myriad of books and the time to read them more than they need leveled books or intensive phonics instruction. In the ensuing thirty years since his work began, data has consistently backed his claims. However, studies that show the benefits of leveled reading, particularly that using Fountas and Pinnell levels, are often downplayed or dismissed in Krashen’s work. His bias towards non-leveled and unrestricted reading becomes highly apparent after reading even one or two of his articles but his educational philosophy is consistent and based on academic research and scientific studies using sample and control groups in a variety of school settings.

One such study showed that Accelerated Reader can be utilized in a way that increases literacy without negative effects on motivation as long as it is used as intended and extrinsic rewards do not become the focus. *A Crosscultural Inquiry into the Levels of Implementation of Accelerated Reader and Its Effect on Motivation and Extended Reading: Perspectives from Scotland and England* was published by Nancy Everhart in 2005. Everhart’s literature review studied evidence around Accelerated Reader in The United Kingdom and the United States. She quotes studies done by Renaissance Learning, the creator of Accelerated Reader that show the positive effects of sustained use of the AR program on literacy achievement in students. The study also discusses the variety of ways and degrees in which AR is implemented, stating the use

of extrinsic rewards is the least effective motivator for sustained reading and the comparison of student scores leads to the higher readers to continue to stretch themselves further and the lower readers to become less motivated to read (Everheart, 2005). The paper includes tables showing the data collected during the study, and helpfully, includes the Motivation to Read Questionnaire that could be used to replicate or complete similar studies.

Another author that speaks to this topic is Ellen Cregar. She discusses the many different ways that teachers and librarians can use and misuse the Accelerated Reader program's book leveling, quizzes, and points. The article discusses some of the student's rights violations that occur in school libraries due to the lack of privacy surrounding a student's reading level- particularly when the school library collection is visibly labeled with Accelerated Reader levels, as is common in public schools across the United States. Cregar also takes issue with the negative effects of quizzes and points on a student's internal motivation to read and backs her position with references to both Krashen and Kohn. She states that students whose book choice is restricted by levels are not receiving the full benefit of the library and their access to books is being restricted and censored, thus violating their student rights as defined by the American Library Association (Cregar, 2011).

Cregar quotes an article by Alfie Kohn published in 2010 about the negative effects of extrinsic rewards among other ways that teachers may unintentionally demotivate students from reading. In his 2010 article for English Journal, Alfie Kohn discusses six ways that a teacher can kill a student's interest in reading and writing. He first posits that teachers can not truly motivate students and that any efforts to do so are merely coercion, which will only elicit the bare minimum effort required of the students. He then says that what teachers *can* do is to kill a student's internal motivation and interest in reading and writing. A teacher would do this first,

according to Kohn, by “quantifying their reading assignments”. This makes reading a task and it stops being a pleasurable activity to the student but rather something else that “has to get done,” (2010).

In 2011, KnowledgeQuest dedicated an entire issue to promoting reading called “Reversing Readicide.” *Promoting the Joy of Reading Without Killing It* was one of the articles included in this special issue. Beckham discusses the ways in which Accelerated Reading programs can turn reading into a sport and reduce internal motivation for reading. Beckham also posits that children who are focused on quiz-based reading programs do not learn to browse the libraries for themselves and are taught that a book, once started, should always be finished. Beckham makes several suggestions for increasing the culture of reading in schools. She suggests allowing students to determine how many books they feel they can be responsible for at a time and giving them the freedom to choose what they want to check out and read without limitations- literacy levels or otherwise (Beckham, 2011).

The most recent and most visible research on childhood literacy and reading habits comes from the *7th Edition of the Scholastic Kids and Families Reading Report*. The study, conducted by Scholastic Publishing and YOUNGOV, a survey service, was conducted between August and October of 2018. The study is based on questionnaires completed by over 2,700 parents and children and gives a great deal of insight into current reading trends and attitudes. The study’s results are broken down into four sections, two of which are highly relevant to the subject of access and choice. For instance, 89% of children surveyed said that their favorite books were the ones they selected themselves. Of note, 70% of the students surveyed said they had access to a

school library and only 56% of surveyed students felt that the school library had enough books that they wanted to read (Scholastic, 2019).

Scholastic has been publishing their reading report for 14 years now and it has become widely referenced by both academics and news media sources. The report is great because shows current trends in what and how kids are reading. The focus on children's reading habits, as opposed to the methods utilized by school staff and faculty to teach literacy skills and encourage reading habits, is vitally important and no one does it on such a large scale as Scholastic. Another benefit to the report is that it shows exactly how the conclusions are reached and provides the questionnaires that are used to survey the students and their families. The report should be a must-read for all teachers, school faculty, educational policymakers, and anyone who takes part in the upbringing of children.

Review of Related Bibliometric Research

While a plethora of articles and essays regarding leveled reading, quiz-based reading, and free choice book selection can be found, there are no bibliometric studies that look specifically at how this topic is studied, which articles make up the canon on the subject, and how frequently the topic is studied in comparison to school library research overall or how frequently school library subjects are researched in comparison to Library and Information Science topics overall. Furthermore, there are no studies that show the study trends on school librarianship over the past two decades. This information would be useful for school librarians, teachers, and administrators as well as academics whose focus is on education or librarianship in order to see trends in school librarianship policies.

Two research papers on the trends in Library and Information Science research provided insight into how one could use bibliometric methods to show research and publication trends in the LIS field of school librarianship. A search of the EBSCOhost Platform databases did not return any bibliometric studies specifically on school librarianship and further research into the matter could fill a need within the body of research available.

The first of these articles was published in 2006 and has a table which shows the percentage of articles for each of the major LIS journals that were contributions of academic librarians. The only journal specifically geared towards school librarianship had a rate of 4-6% academic librarian contributions between 1998-2002. This study does not look at how many of the journal articles were written by authors with a Masters in Library and Information Science or similar degree conferred (Wiberley, 2006). The research methods discussed in the article convey a sense that the data was hand-tabulated after being gleaned from database searches.

The second study of bibliometrics in LIS journals was published in 2018 and looks at publication patterns across 500 of the most popular articles from 1980-2017. The authors looked at “number of authors, enhanced institutions, document types, and keywords,” (Hodonu-Wusu, 2018). The researchers used Boolean phrases combining library information science keywords to search Web of Science’s Core Collection. They analyzed the results related to “on the country of origin, publication year, number of authors, number of references, number of pages, number of keywords, research areas, and publisher outlet to explore the major trends in LIS research and factors impacting the number of citations received by them,” (Hodonu-Wusu, 2018). The research showed interesting trends in authorship and publication but did not look at what topics in LIS research were being studied or how frequently papers on any given topic was being cited.

Methodology

This research was conducted manually by searching the EBSCO databases relevant to library and information science and education. The first step was to choose the databases that would be searched. From the options available, the research was conducted within the following: Academic Search Premier, Education Source, ERIC, Information Science & Technology Abstracts (ISTA), Library & Information Science Source, Library, Information Science & Technology Abstracts, Middle Search Plus, Primary Search, Teacher Reference Center.

Once the specific databases were chosen, search terms and a date range were selected. All articles included in the study were published between 1998 and 2018. Results for all searches were limited to peer-reviewed journals. Three searches were conducted using these parameters and the results were then counted, aggregated, and analyzed. The first search looked at results returned for the term “elementary school library” as a subject, meaning that it would retrieve articles with the term in the title, keywords, and abstracts. The second search utilized the terms “free choice reading” OR “self-selected reading” as the two terms are often used interchangeably in research on the subject. The third search looked for articles using the term “leveled reading.”

The results were then observed to learn which databases were returning articles with the relevant terms most frequently, which journals were publishing papers on the topics studied, and what publishing trends on these three topics have done over the past twenty years. This data was hand counted and entered into a spreadsheet where the information was turned into the figures denoted below.

Results

General findings show that over the years, research into the three terms observed for this study has been increasing overall but at haphazard rates. In addition, despite the large number of

peer-reviewed journals that are dedicated to library and information science, education, and literacy the number of studies that focus on school librarianship, leveled reading, and self-selected reading that are not very many, especially when compared to the numbers of articles available when the search included non-peer-reviewed articles.

For instance, the search for “elementary school library” from 1998-2018 within the chosen databases returned 510 peer-reviewed articles. The same search but without the limiter “peer-reviewed” returned 4,512 results. If the source types of these results are limited to academic journals, trade publications, magazines, journals, and reports the resulting list contains 2,023 items.

“Elementary School Library”

The peer-reviewed journal articles located when using “elementary school library” as the search term with the limiters listed above in Methodology produced articles from seven databases. As can be seen in figure 1, more than half of the articles returned are from Library, Information Science & Technology Abstracts and Library & Information Science Source.

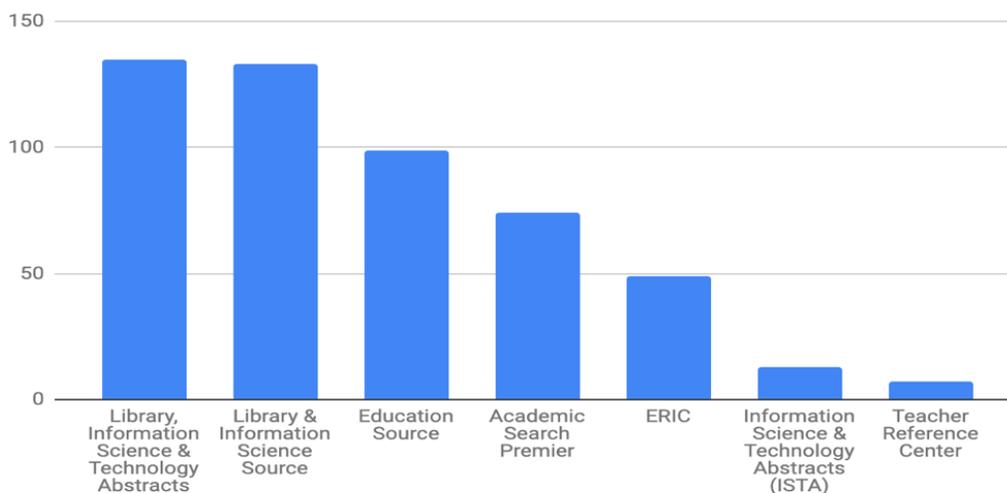


Figure 1

When searching EBSCO using the term “elementary school library” the parameters outlined above in Methodology, it becomes very clear that the majority of peer-reviewed research on the subject is contained within two journals. Teacher Librarian published 110 articles returned and Knowledge Quest published 101, meaning that the two journals published over 60% of the peer-reviewed research returned for this search. Results showing which journals carried articles found when searching for “elementary school library” can be found in Figure 2 below.

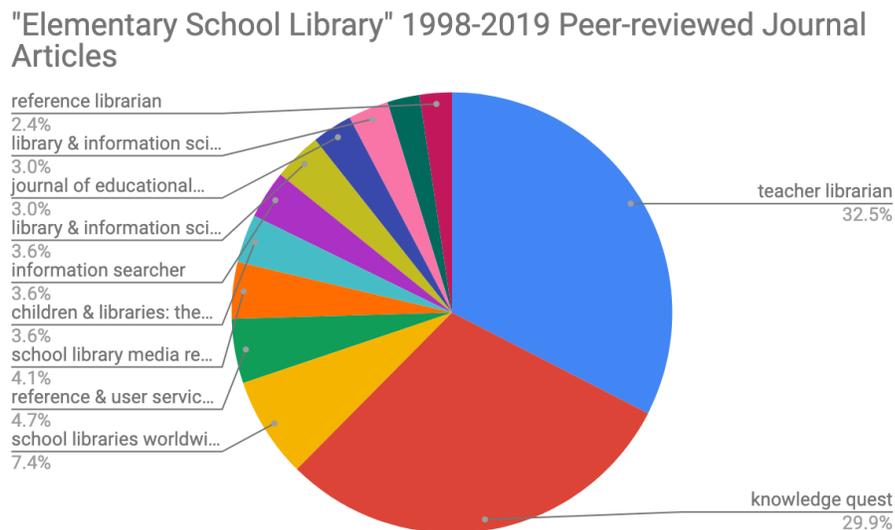


Figure 2

As for the trends surrounding “elementary school library” as a subject term in peer-reviewed research over the past twenty years, the numbers steadily climbed until 2010 when it peaked and have been declining since. This leaves a wide gap and lack of currency in the body of knowledge on elementary school libraries. It could, however, also point to a change in terminology preference, since the study did not include “elementary school media center” in the search terms. Further research into this aspect is warranted. Figure 3 shows publishing trends over the past twenty years for articles with “elementary school library” as a subject.

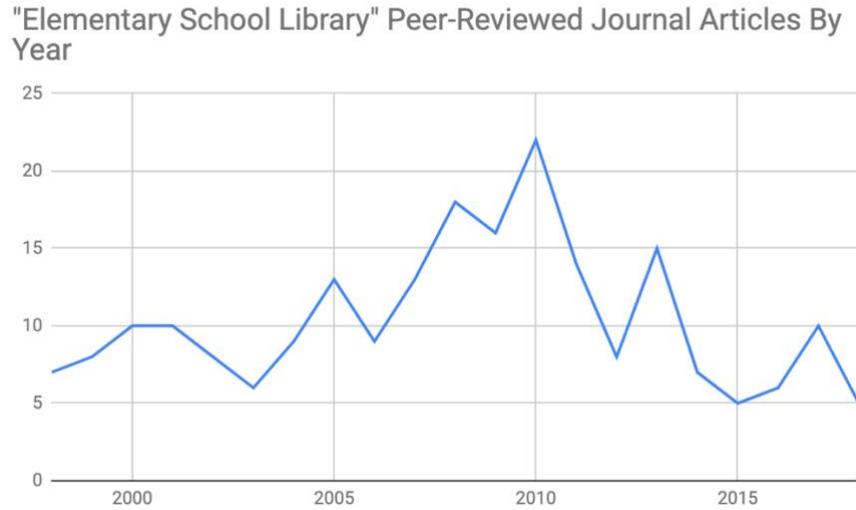


Figure 3

Leveled Reading

Unlike the search for “elementary school library”, “leveled reading” produced results primarily from education-related databases such as ERIC and Education Source. The two library databases that returned results together only counted for 5 articles. This gives evidence to the fact that there needs to be more peer-reviewed academic research into the effects of leveled reading from the standpoint of the librarian.

Databases with "Leveled Reading" 1998-2019, Peer-reviewed articles

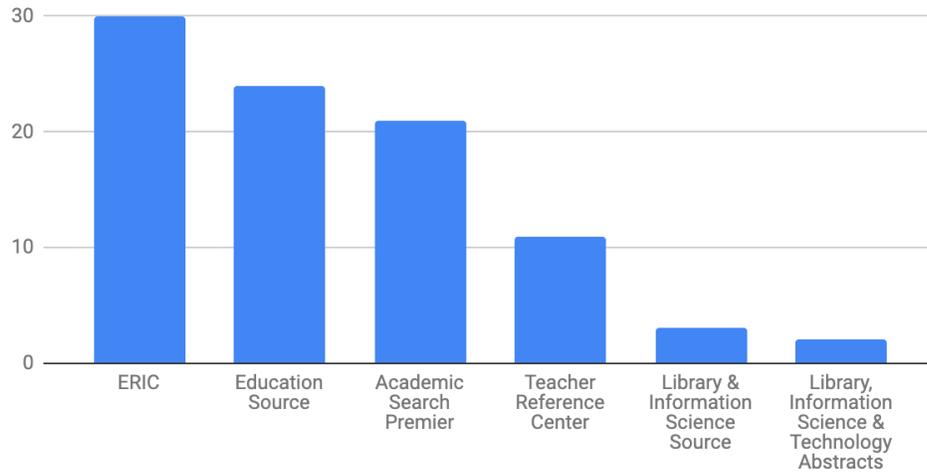


Figure 4

As can be seen below in figure 5, similar trends are found when analyzing which journals are publishing studies on leveled reading. Leveled reading is studied extensively from the perspective of the reading teacher or literacy coach but there is much less research into the topic from the librarian’s standpoint despite the heavy role school librarians often play in choosing, and labeling leveled books and managing programs such as Accelerated Reader.

Journals cited in a search for "Leveled Reading" 1998-2019, Peer-reviewed articles

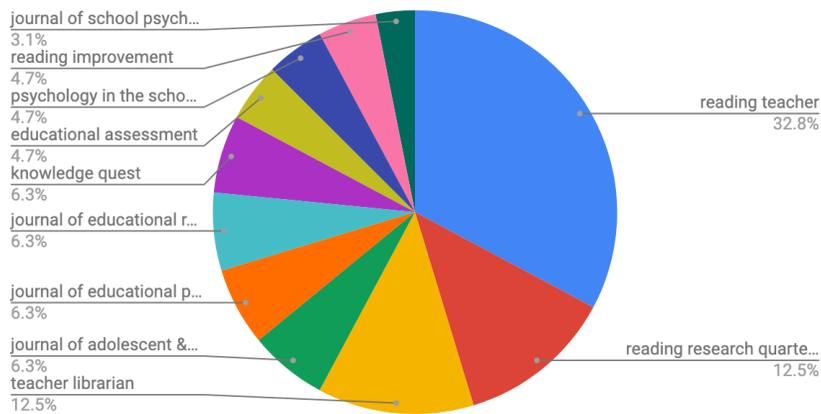


Figure 5

Publishing trends on leveled reading appear to follow a similar trend to those related to elementary school libraries. The number of peer-reviewed articles returned for each year peaked in 2010 and have been steadily decreasing since then. Further inquiry into why this trend is occurring is warranted and would be interesting fodder for future research. The trends can be seen below in figure 6.

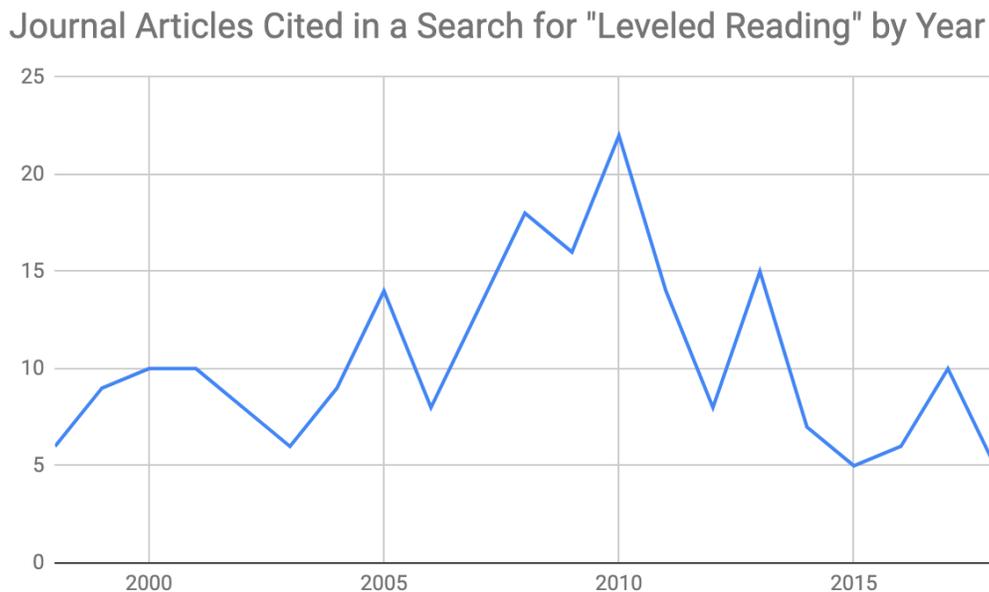


Figure 6

Self-Selected Reading and Free Choice Reading

The research trends for self-selected reading and free choice reading follow similar patterns to those found above. The databases with studies that appear in the search results for these two terms lean heavily towards education and have minimal representation from library science sources. This is demonstrated in figure 7 below.

Databases cited in search for "self selected reading" or "free choice reading" 1998-2018

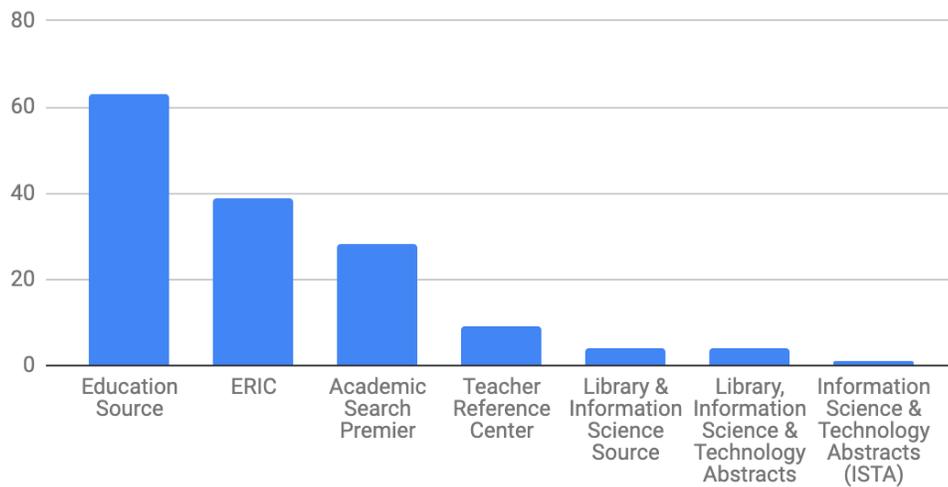


Figure 7

Additionally, the journals who are publishing peer-reviewed studies that look at the implementation and effects of free choice reading are almost exclusively education and literacy journals. Librarians are often staunch defenders of the right to self-selected reading choice for readers of all ages. The articles returned in this particular search were evenly distributed among library science and education journals, but the overall number of articles written on the subject in the past twenty years is relatively low, as can be seen in database searches for peer-reviewed academic articles on the topic, as can be seen in figure 8.

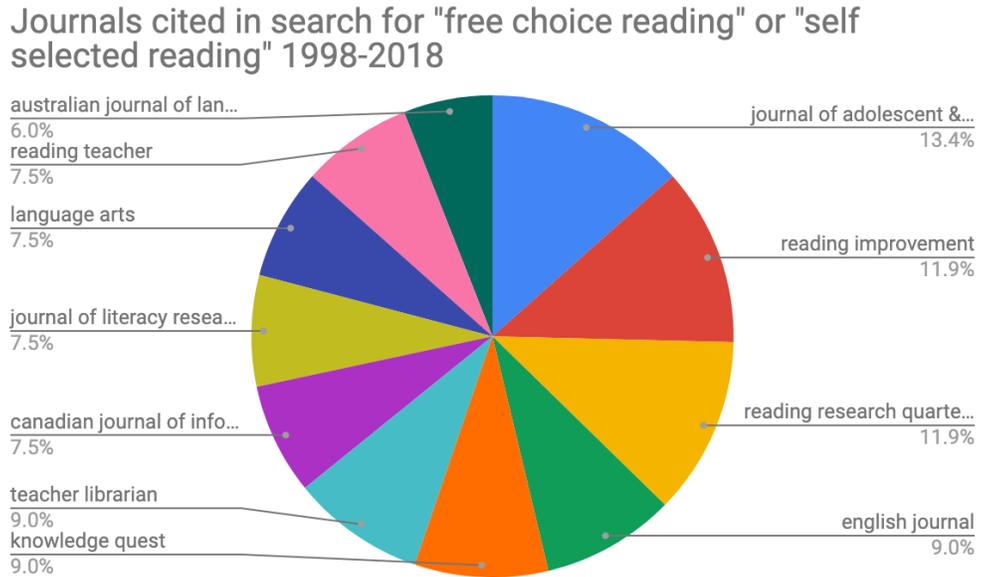


Figure 8

Research on self-selected and free choice reading is increasing but trends show a sporadic pattern with many increases and decreases in the number of papers written on the topic. This is shown in figure 9.

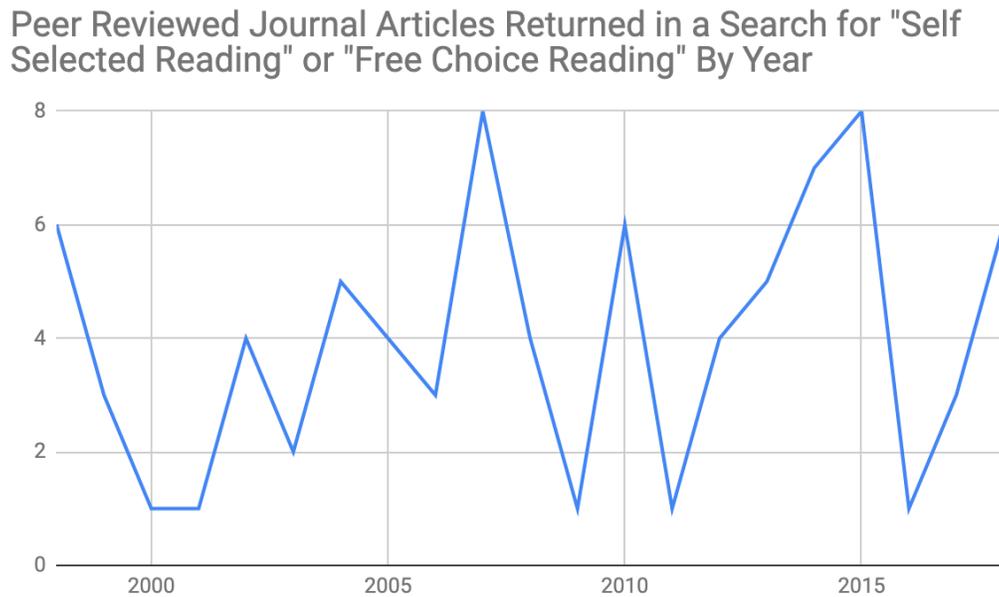


Figure 9

Discussion

While evidence shows that there is discussion around matters relating to elementary school libraries, leveled reading, and free choice reading within the library science community, it is far outweighed by research being published in education-related journals and databases. In addition, the information being published on these topics that *are* being published from the librarianship perspective are far more likely to be non-peer-reviewed and published by trade publications.

Trends in research on these topics have been sporadic over the past twenty years and is currently decreasing for the topics “elementary school library” and “leveled reading”. On a positive note, publishing trends regarding free choice reading and self-selected reading are currently on the rise.

KnowledgeQuest, the publication for the American Association of School Librarians (AASL) and Teacher Librarian are the two library focused journals who publish articles related to our search terms most frequently and would be a good place to start a search for more information, as well as a good place to begin inquiries to publication of one’s own research into the subjects at hand.

Considering the importance placed on literacy skills and reading in American elementary schools, in addition to the trend of extensive testing and evaluation of student ability, the topics of leveled reading and free choice reading are important to today’s teacher librarian and deserve to be studied in a rigorous, academic manner in order to determine the most effective evidence-based practices in school libraries and the topic is ripe for future inquiries.

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Figures

Figure 1.

Databases Returning Peer-Reviewed Articles for "Elementary School Library" 1998-2018

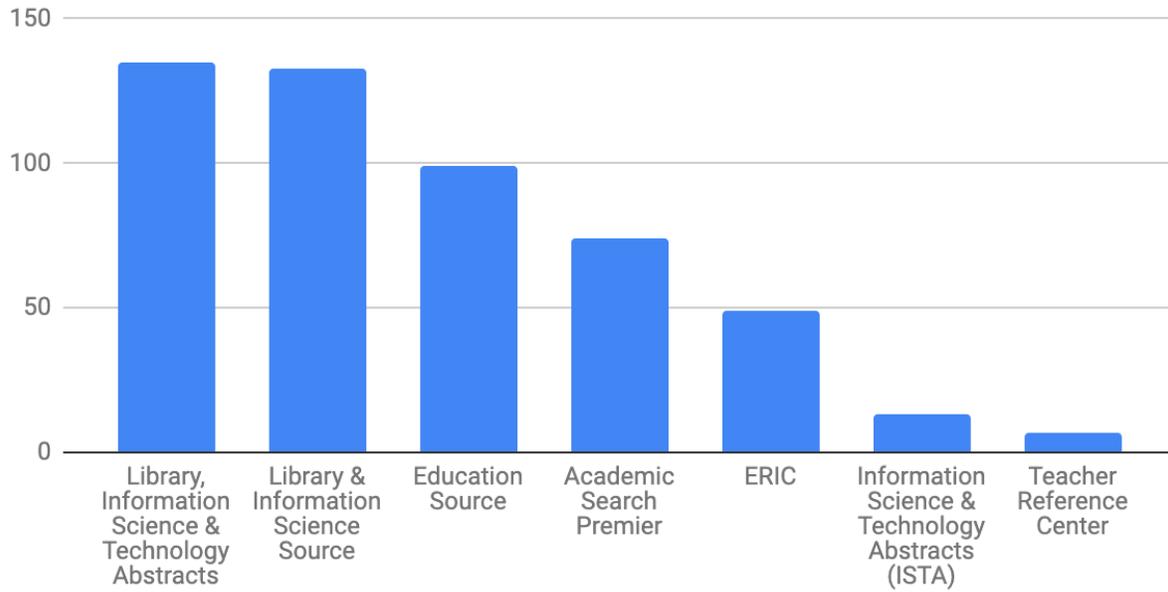


Figure 2.

"Elementary School Library" 1998-2019 Peer-reviewed Journal Articles

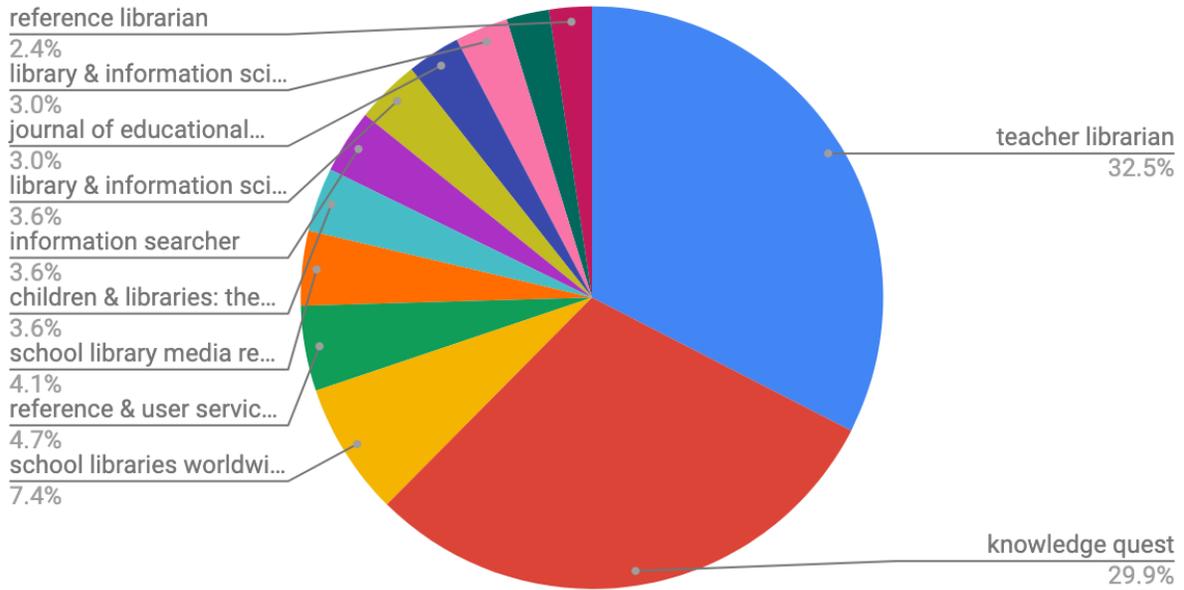


Figure 3.

"Elementary School Library" Peer-Reviewed Journal Articles By Year

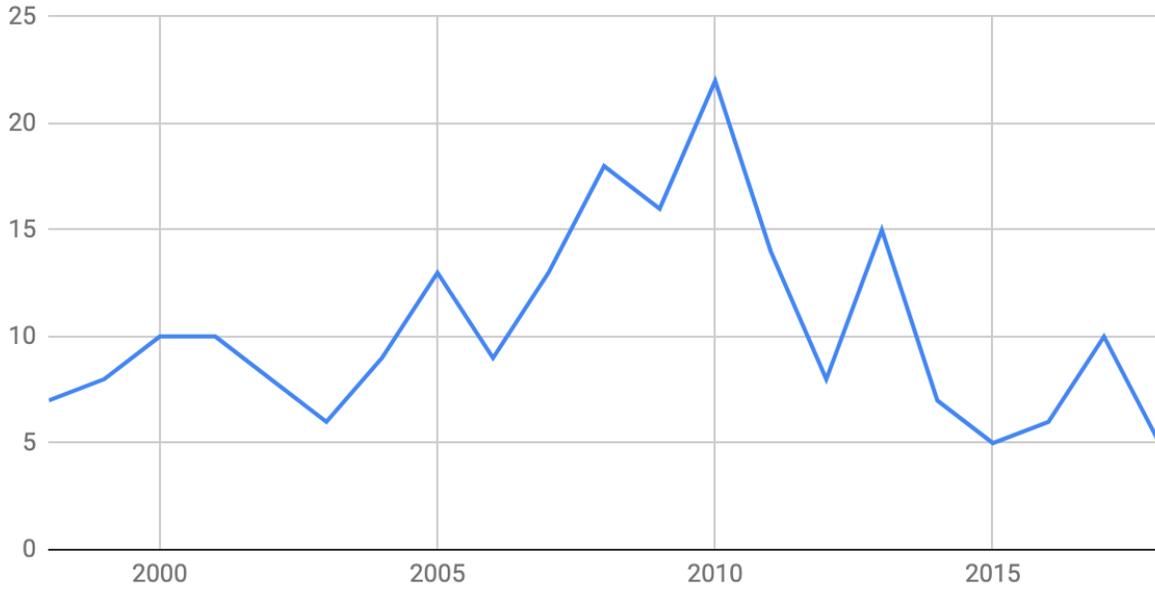


Figure 4.

Databases with "Leveled Reading" 1998-2019, Peer-reviewed articles

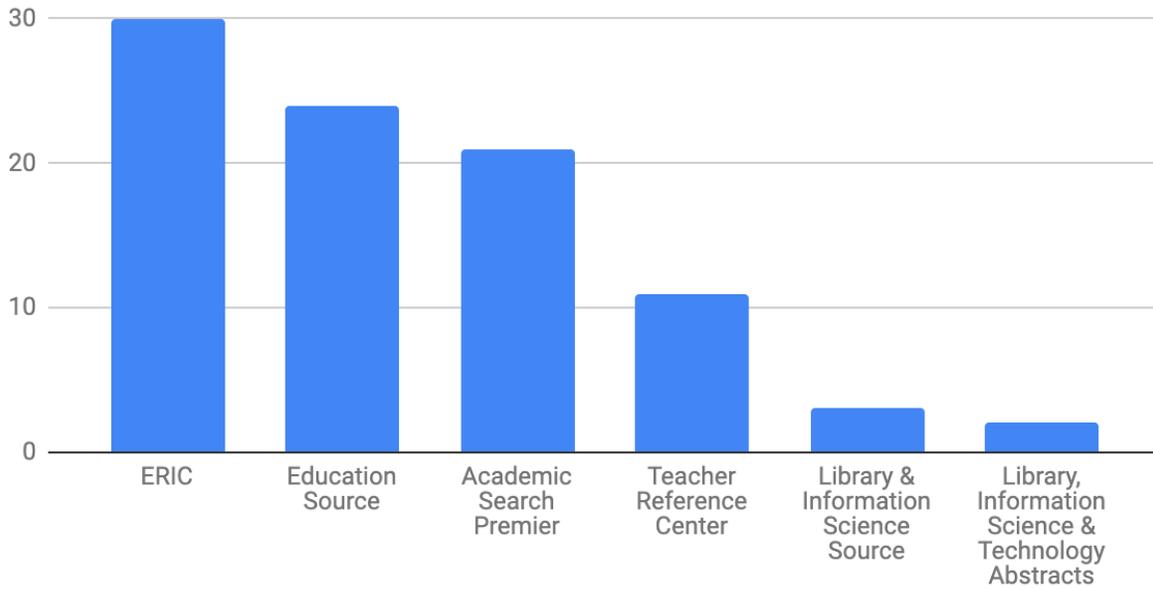


Figure 5.

Journals cited in a search for "Leveled Reading" 1998-2019, Peer-reviewed articles

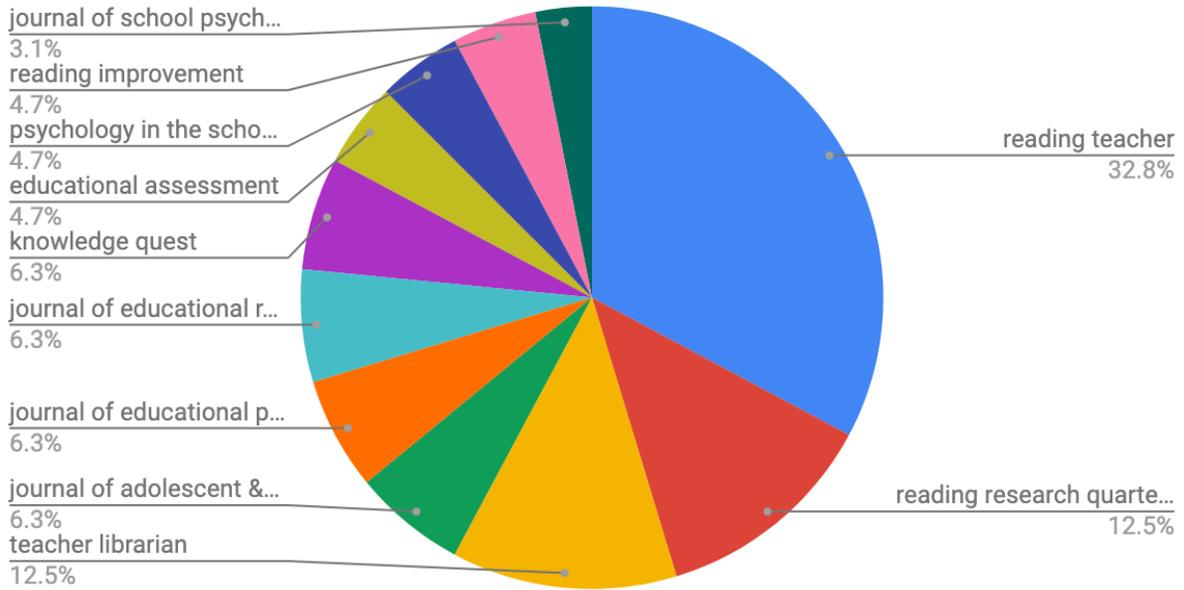


Figure 6.

Journal Articles Cited in a Search for "Leveled Reading" by Year

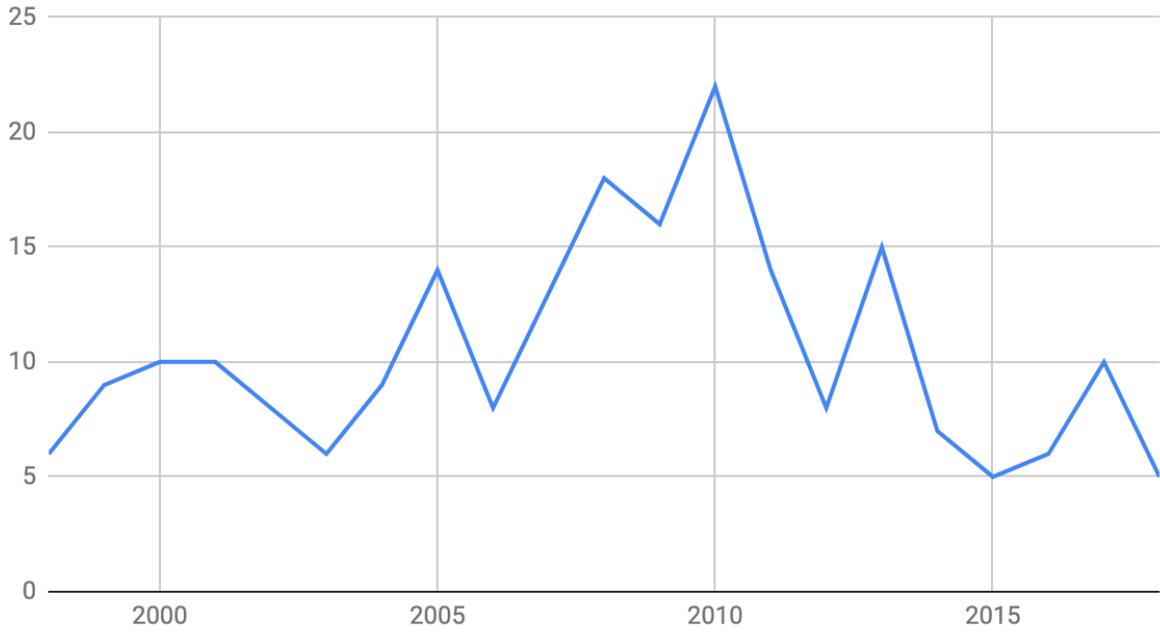


Figure 7

Databases cited in search for "self selected reading" or "free choice reading" 1998-2018

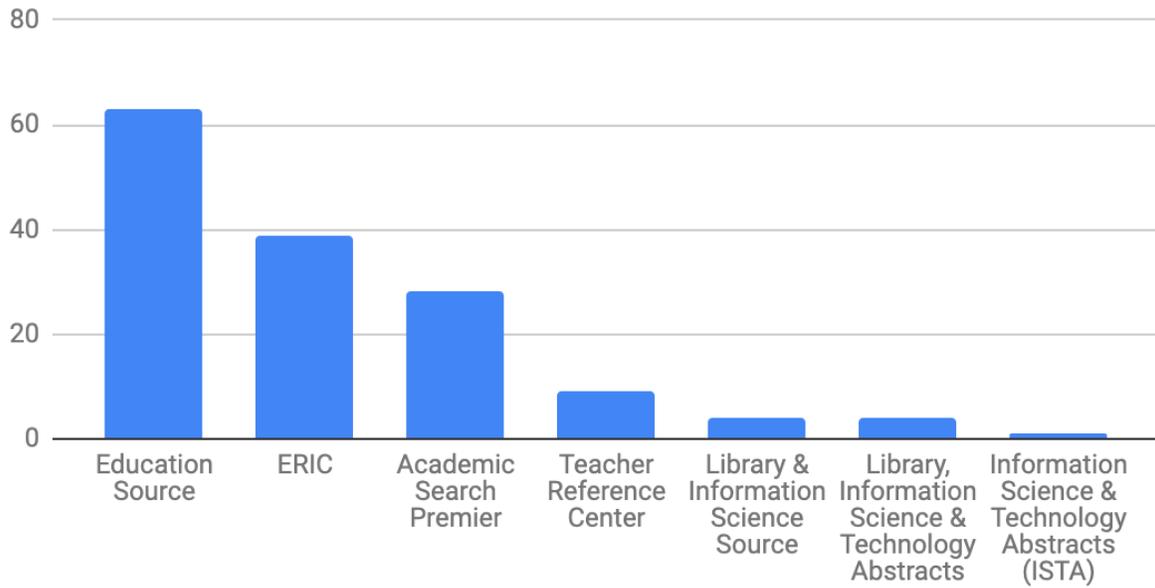


Figure 8.

Journals cited in search for "free choice reading" or "self selected reading" 1998-2018

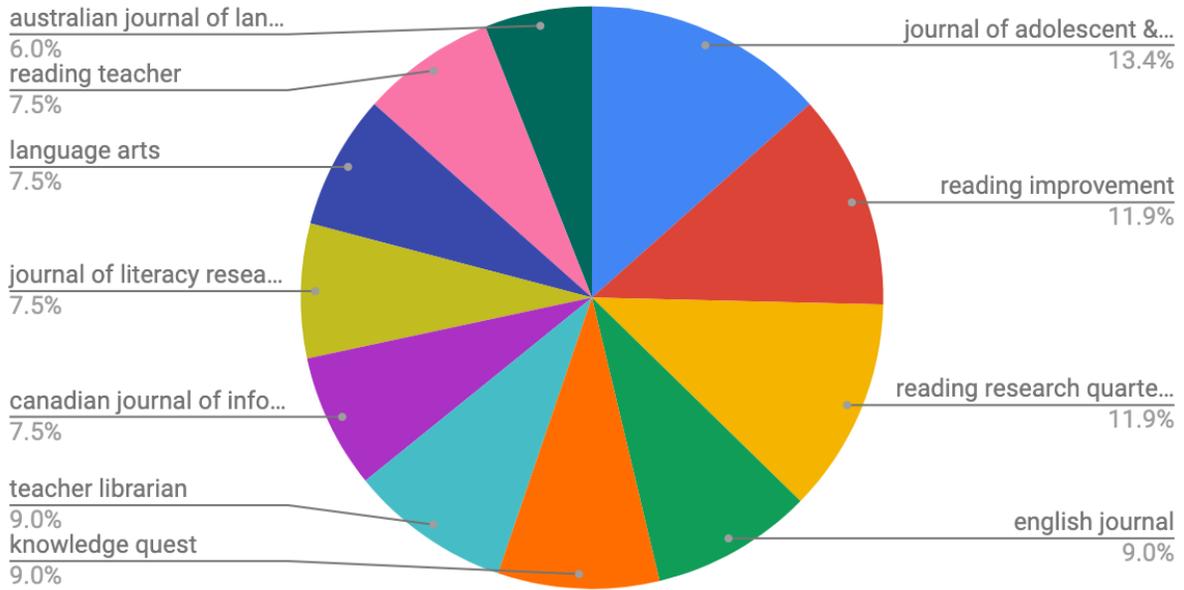


Figure 9.

Peer Reviewed Journal Articles Returned in a Search for "Self Selected Reading" or "Free Choice Reading" By Year

