



Understanding the Finnish Education System: What's Revealed and What's Hidden

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Abstract. The Finnish education system is noteworthy due to its success in managing education. Therefore, this study explores the field of the success of Finnish education system research, providing insight into how Finnish education system research developing, research conducted to date, and future research directions. This study employs structured literature review approach. Our findings include the distribution and description of existing research on the Finnish education system, and suggest that focus of previous research are teacher and teaching methods, education system, policies, curricula, education reform, the Program for International Student Assessment, leadership, education investment, and other areas. The High Performing Education literature is used to identify the success factors of the Finnish education system, which include teacher quality, school leadership, system characteristics, and educational reform. This comprehensive literature review offers a detailed overview of the Finnish education system, and suggest future research directions to explore areas that have not been previously address by scholar.

Keywords: Finland, Finnish education system, structured literature review, high performing education (HPE).

1 Introduction

Finland's education system has gain global recognition since the release of the Program for International Student Assessment (PISA) result. Finland ranked at the top in 2000, 2003, 2006, and 2009. This success has sparked curiosity among other countries about how Finland manages its basic education. Finland's achievement is particularly remarkable given that its education system was previously only average. Additionally, during the global economic recession of the early 1990s, the Finnish government was forced to implement significant budget cuts, including in education. Despite these financial challenges, Finland managed to maintain a well-functioning education system [1].

Some literature has examined the success of the Finnish education system, employed various methods and focused, including literature review and content analysis, concentrating on school autonomy and accountability [2], and narrative literature review [3] [4]. Unfortunately, the existing literature does not comprehensively map the success of

the Finnish education system. Therefore, there is a need to explore how the literature depicts this success through research and to provide information on the development of education system research in Finland and its current research position. So, this research will offer insights into 'best practices' in education systems. This study aims to answer the following research questions are, (1) What key factors can explain the success of the Finnish education system? (2) How has research on the Finnish education system evolved over time? (3) What are the future research directions for the Finnish education system? Published research on the Finnish education system is relatively scarce in academic journals. Instead, documentation of the system's success can be found in reports by the Organization for Economic Co-operation and Development (OECD), books focusing on Finnish education, United Nations Educational, Scientific and Cultural Organization (UNESCO) reports, and similar sources. Therefore, for this study, a journal database from Scopus and Google Scholar was utilized. Initially, 519 pieces of literature were retrieved using keywords. After the selection process, 68 pieces of literature were analyzed.

2 Method

Structured literature review is a methodology employed to explore scientific literature, fostering insight and critical analysis, and delineating future research trajectories by building upon prior studies. This research adopts a structured literature review approach, following the same procedural steps as typical research, including establishing research questions and conceptual frameworks, gathering data, conducting analysis, elucidating research findings, and drawing conclusions [5] [6].

To address research question 1, we employ factors contributing to the High Performing Education System (HPES) [7], and for questions 2 and 3, we undertake a structured literature review. However, the search for determinants of success in the Finnish education system relies on literature obtained from databases. Our methodology aligns with previous studies that involving three stages: planning, implementation, and reporting of the literature review process [8][9][10]. The search keyword employed in the database is "Finland education system*." Scopus and Google Scholar serve as the two databases for retrieving published articles on the Finnish Education System, aiming for comprehensive coverage [11]. The publication period of the articles ranged from 2000 to 2023, where 2000 was the beginning of Finland's first ranking in PISA. A total of 519 pieces of literature were gathered from both databases. Subsequently, literature selection involved excluding sources other than research journals (e.g., proceedings, book chapters, theses), non-English papers, and those focusing on higher education. This process yielded 68 articles, 37 from Scopus and 31 from Google Scholar, as illustrated in figure 1. Finally, an analysis of the selected papers was conducted, considering publication year, focus, most cited articles, authorship, research location, and methodology. Additionally, VOS viewer software was utilized to visually map publication and author trends based on the sorted papers.

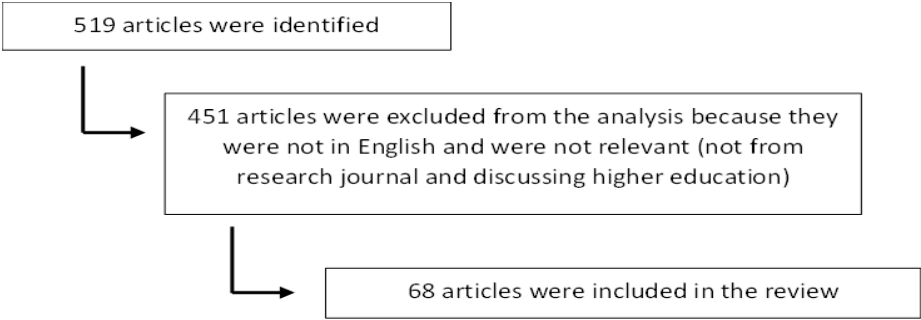


Fig. 1. Literature review process

3 Result and Discussion

3.1 Descriptive Analysis

Descriptive analysis involved categorizing literature based on several criteria, including journal, publication year, country under study, article citations, and research methodology employed. In the initial phase of descriptive analysis, the top three articles with the highest number of citations from the two databases were identified. Table 1 illustrates the various research focuses of these three articles.

Table 1. Most Cited Article of Finnish Education System

Authors	Journal	Title	Number of Citation
Grek, S	Journal of Education Policy 24(1), 2009	Governing by numbers: The PISA 'effect' in Europe	688
Sahlberg, P	Journal of Education Policy 22(2), 2007	Education policies for raising student learning: The Finnish approach	270
Puustinen et.al.	Teaching and Teacher Education 74, 2018	Teaching: A practical or research-based profession? Teacher candidates' approaches to research-based teacher education	115

Among the 68 articles analyzed, the distribution of journals that published them is detailed in table 2. Specifically, four articles were published in the Scandinavian Journal of Educational Research, while three articles each were featured in two journals: the Iranian Journal of Comparative Education and the European Educational Research Journal. Furthermore, four journals each published two articles: the Journal of Education Policy, Research in Comparative and International Education, Policy Futures in Education, and International Education Studies. The remaining articles were published

individually. Through bibliographic mapping utilizing VOS Viewer software, illustrated in Figure 2, prevalent keywords in research on the Finnish education system were identified, including terms like Finland, comprehensive school, educational reform, and educational policy, among others. Similarly, authors who contributed more than two articles include Pasi Sahlberg, Marku Jahnukainen, Jari Lavonen, and Marjaana Rautalin.

Table 2. Journal Distribution

Journal	Number of Article Published
Scandinavian Journal of Educational Research	4
Iranian Journal of Comparative Education	3
European Educational Research Journal	3
Journal of Education Policy	2
Research in Comparative and International Education	2
Policy Futures in Education	2
International Education Studies	2
Curriculum Journal, European Journal of Teacher Education, European Journal of Teacher Education, Current Sociology, Oxford Review of Education, Center for Educational Policy Studies Journal, European Review, Quest, Language and Education, Power and Education, Educational Research for Policy and Practice, European Educational Research Journal, KEDI Journal of Educational Policy, International Review of Education, Leadership and Policy in Schools, Educacao e Pesquisa, CESifo Economic Studies, Bordon, International Journal of Qualitative Studies in Education, Asia-Pacific Education Researcher, Studies in Higher Education, European Journal of Special Needs Education, European Societies, Environment and Planning C: Politics and Space, Journal of European Social Policy, Australian Journal of Teacher Education, International Journal of Curriculum and Instruction, International Journal of Education and Literacy Studies, US-China Education Review, Al-Athfaal: Jurnal Ilmiah Pendidikan Anak Usia Dini, Economic Social and Engineering Science, International Journal of Qualitative Research, Journal of Social, Humanity, and Education, International Journal of Law Management and Humanities, Asian Journal of Research in Education and Social Sciences, Learning and Individual Differences, Journal of Research on Trade Management and Economic Development, International Journal of Research and Innovation in Social Science, Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi, The Intuition, Region-Educational Research and Review, Philosophy, International Research in Geographical and Environmental Education, Basic and Applied Education Research Journal, Journal of Pharmaceutical Negative Results, Tell: Teaching of English Language and Literature Journal, International Journal Of Humanities Education and Social Science, Teaching and Teacher Education, International Journal of Social and Educational Innovation, International Journal for Research, SEEU Review	50

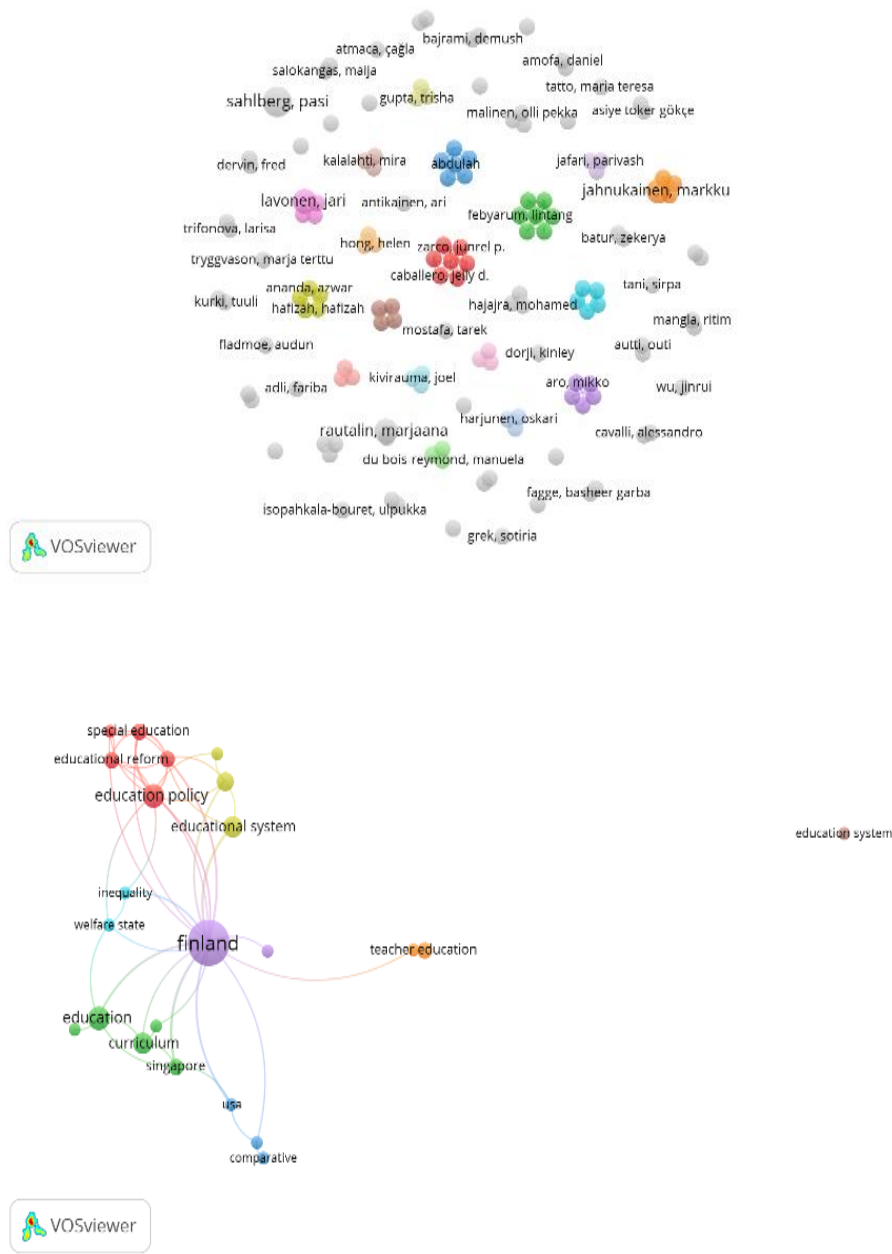


Fig. 2. Bibliographic Mapping of Authors and Keywords

Table 3 present the countries under scrutiny in the articles. A notable proportion, constituting 47.1% (32 articles), concentrated on Finland. Moreover, 7.4% (5 articles) directed their attention to Turkey. Unexpectedly, Indonesia, a Southeast Asian country, occupied the third position with 5.9% (4 articles) of the research. Finland remains the predominant subject of inquiry, serving as a model of success in education for other countries.

Table 3. Country of Study Object

Country	Number of Publication	%
Finland	32	47.1
Turkiye	5	7.4
Indonesia	4	5.9
Iran	3	4.4
India	3	4.4
2 countries	2	2.9
4 countries	2	2.9
UK	2	2.9
3 countries	1	1.5
Moldova	1	1.5
Ghana	1	1.5
Nigeria	1	1.5
China	1	1.5
Bulgaria	1	1.5
Philippines	1	1.5
Romania	1	1.5
North Macedo	1	1.5
Sweden	1	1.5
Italy	1	1.5
US	1	1.5
South Korea	1	1.5
Israel	1	1.5
Bhutan	1	1.5

As shown in Table 4, the most frequently used methodology in studies on the Finnish education system is international comparison (19 studies), followed by point of view/conceptual approaches (15 studies). Other methodologies include case/field studies and interviews (7 studies), surveys/questionnaires (6 studies), literature reviews (5 studies), and various other methods (5 studies). These other methods encompass hedonic regression techniques [12], phenomenological approaches [13], rhetorical analysis [14], zeitgeist analysis [15], and experiments [16].

Table 4. Methodology Used

Research Method	Number of Papers	%
International comparison	19	27.9
Point of view/conceptual	15	22.1
Case/Field study/Interviews	7	10.3
Survey/Questionnaire	6	8.8
Literature review	5	7.4
Other	5	7.4
Content analysis/Discourse analysis	4	5.9
Document analysis	3	4.4

3.2 Determining Factor for the Success of the Finnish Education System

To identify the primary factors contributing to the success of the Finnish education system, we refer to the HPE literature which examines educational success in Singapore. These factors include teacher quality, school leadership, system characteristic, and educational reform [7].

Teacher Quality. Among all the paper source from Scopus and Google Scholar, after screening based on predetermined criteria, teachers emerged as a crucial factor in the success of the education system. Numerous studies highlight that high teacher qualifications—encompassing education, training, and skills—along with substantial trust in teachers, school principals, schools, and a decentralized government, have been key since the beginning of educational reforms in the 1970s [15]. Moreover, Finland places a strong emphasis on teacher professionalism, which in encompasses not only teacher’s competence but also their status within society.

System Characteristic. To ensure educational goals are met, specific standards are established for both teachers and students. However, Finland’s approach to accountability differs from that of other countries. While other countries often focus on rewarding or punishing teachers and students based on accountability measures, Finland practices what is known as intelligent accountability. This approach trusts schools to perform their duties professionally and to know what is best for their students, reflecting a deeply ingrained cultural value in Finnish society [17].

Educational Reform. Improvements in the Finnish education system have been ongoing, driven by educational reforms that the government has committed to since the 1970s. During the 1980s, Finland’s approach to educational reform differed from other countries. The three key policies were flexible standards, integrating learning with creativity, and accountability grounded in trust-based professionalism. Additionally, Finnish educational policies encompass equal basic education for all children, well-trained teachers, intelligent accountability, a culture of trust, and sustainable leadership [17].

3.3 Focus of Finland Education System Literature

The existing literature on the Finnish education system can be categorized into ten focus areas: teachers and teaching method, the educational system, education policy, curriculum, education reform, PISA, leadership, education investment, and other topics (see Table 5). The "other topics" category includes quality, equity, disparities, Finnish success stories, and educational innovation, each represented by a single paper. There are 16 papers examining teachers and their instructional methods. In Finland, the teaching profession demands advanced education, typically requiring a minimum of a master's degree, along with training that enhances teachers' abilities to engage with students in the classroom [18].

Table 5. Focus of Study

Focus of Study	Number of Papers	%
Teacher and teaching method	16	23.5
Educational system	14	20.6
Education policies	13	19.1
Curriculum	8	11.8
Educational reform	5	7.4
PISA	3	4.4
Leadership	2	2.9
Education investment	2	2.9
Other focus	5	7.5

In the other hand, Finnish education system encompasses various elements that facilitate its effective operation. Initially, the primary objective of education in Finland was to ensure that all children had access to education, thereby fostering comprehensive development across different domains. The aspiration for an ideal education system is for it to be accessible to all children, irrespective of social or economic disparities. This necessitates that the education system, at its core, embodies principles of equality and delivers high-quality education [19].

In contrast to other countries, Finland's education policy diverges in its approach: it eschews stringent and inflexible school standards, emphasizing not only academic achievement but also the cultivation of personality, creativity, and skills. Furthermore, Finland's education policy prioritizes trust-based intelligent accountability, entrusting school principals and teachers with professionalism and the autonomy to determine what is best for their students, while also requiring them to report on students' progress in the learning process. Consequently, Finland's education policy is characterized by principles of equity, flexibility, creativity, teacher professionalism, and trust [18].

Apart from the influence of teachers, another critical factor contributing to the success of education in Finland is the curriculum. The national core curriculum in Finland holds significant importance in guiding teaching and learning processes and undergoes revision every decade. The transition in Finland's education system from centralized to decentralized has mandated local governments to formulate local curricula aligned with the national core curriculum [20]. Other focuses that appear in the literature of Finland is PISA. Since 2000, Finland has participated in the PISA test organized by the OECD

every three years, and has been at the top for four times in a row. While leadership and education investment get the least attention in the Finnish education system literature, there are two papers, representing 2.9%, dedicated to this aspect. In line with that, there are additional research topics that have garnered limited attention from Finnish education system researchers, thus they are categorized under "other focuses." These research topics encompass aspects such as the success narrative of the Finnish education system, educational innovation, as well as issues of equity, equality, and educational quality. Each of these topics is addressed by one paper, totaling five papers or 7.5%.

3.4 Trend and Future Research

The literature gathered on the Finnish education system highlights areas that have received comparatively less attention in focused studies, notably the success narrative of the Finnish education system, educational innovation, and concerns regarding equity, equality, and educational quality. Despite Finland's consistent top performance in the OECD's PISA assessments for over two decades, research on the Finnish education system remains relatively scarce. The success of Finland's education system has attracted significant interest from other nations for exploration and study. Existing studies primarily concentrate on key factors perceived to determine educational success, such as teachers, pedagogical approaches, governmental educational policies, curriculum, and discussions surrounding the education system and reform. However, aspects such as educational quality, equity, and equality have received limited attention from researchers. Similarly, the success story of Finnish education and educational innovation have also been relatively underexplored. Research into educational innovation aligned with the Finnish education model is still in its nascent stages, with minimal research conducted as of 2023. The comprehensive exploration of the success narrative of Finnish education remains relatively uncharted territory for researchers. The research focus typically centers on delving into individual factors believed to influence success and subsequently examining them in depth using various research methodologies.

From the conducted literature review, it is evident that researchers have extensively explored various facets of the Finnish education system, unveiling the pillars of its successful implementation. The achievement of the Finnish education system is underpinned by several critical factors, including: (1) elevated teacher qualifications, typically requiring a minimum of a master's degree; (2) an education framework that prioritizes equality irrespective of societal status; (3) educational policies that regard principals and teachers as proficient professionals capable of executing their responsibilities effectively; (4) a flexible curriculum, where the national curriculum serves as a foundational guideline, yet allowing regional adaptations to cater to local needs; (5) leadership; and (6) investment in education. However, the latter two elements have received relatively less attention from researchers.

As exploration into these research focuses remains ongoing, there exists potential for future studies to delve deeper into this subject matter. Education systems are inherently dynamic, evolving in response to a nation's circumstances and evolving trends. Finland, revered as an exemplar of an outstanding education system, is also undergoing

transformations. The themes of educational leadership and investment present intriguing avenues for further investigation, with potential applicability and relevance in other nations as well.

4 Conclusion

It is undeniable that Finland has effectively demonstrated the success of its education system. While it may not be feasible to replicate the Finnish education system entirely in other countries, there are valuable lessons to be learned from Finland's achievements that can inspire other nations to strive for similar success. Researchers have thoroughly investigated and effectively communicated the factors contributing to Finland's success. Nonetheless, there remains an unexplored space that warrants further attention from future researchers interested in delving into the Finnish education system.

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