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## INTERRELATION BETWEEN EDUCATIONAL REFORMS AND EXTERNAL ASSESSMENT OF STUDENT ACHIEVEMENTS IN THE CONTEXT OF SWEDISH EDUCATIONAL SYSTEM

**Abstract:** *In the field of educational policies and the illustration of dynamic reform processes, external assessment plays a significant role concerning the inception and implementation of educational reforms. The theoretical exposition of the primary drivers of educational changes highlights alternations in the implementation process of national reforms, distinctive to each educational system, while offering insight into the alignment between national and global reforms aiming for educational standardization and market orientation. These processes find support in the realm of external assessment, which is overseen by international organizations and educational agencies. The OECD's PISA survey, having evolved into a recognizable benchmark for evaluating the quality of education systems, holds particular prominence in the realm of educational reform implementation. The data on achievements, system comparisons, and improvement recommendations proposals tied to PISA research can be used to transform national educational systems. To explore the correlation between educational reform and external assessment, the Swedish educational system was selected as an illustrative example of a system whose policies have long involved evaluation and implementation of changes based on external assessment outcomes. This paper is based on the analysis of primary and secondary literature concerning Sweden's PISA survey results. A systematic search was conducted in the OECD database with the objective of gaining insight into primary data regarding student achievement. Insights into previous scholarly analyses of Sweden's PISA results were acquired by searching scientific publication database. The primary focus lies on presenting the reform actions initiated in response to the decline observed in the PISA 2012 survey. Additionally, the paper aims to illustrate the influence of these reforms and changes in educational policy stemming from the instrumental utilization of external assessment data.*

**Key words:** *educational policy, educational reform, PISA survey, Sweden, external assessment*

## INTRODUCTION

Education is one of the foundations of society, evolving in tandem with societal changes and moulding itself to conform to emerging trends that shape the way of life. The development of education occurs through the formulation of educational policies, followed by the implementation of educational reforms. Guiding education requires an understanding of the origins, goals, influences and outcomes (Bell and Stevenson, 2006). The shaping of educational policy is intertwined with those who oversee educational development, as well as those responsible for its implementation. This implies that the adoption of educational policy involves a process of negotiations, challenges, and agreements rather than a unilateral decision (Bell and Stevenson, 2006). Adopting educational policy can also be viewed as a problem-solving process that engages education creators and stakeholders in the pursuit of effective solutions (Papanikos, 2010). According to Legrand (1993),

the purpose of adopting educational policies is to establish plans and strategies for achieving educational objectives.

Despite the significance of educational policies, defining the term *educational policy* yields diverse interpretations. According to the Croatian Encyclopedia (2023), educational policy is in fact a part of a nation's public policy, orchestrating the formulation of strategies and methodologies to realize societal objectives through education. Pastuović (1995, p. 42) states that "educational policy is the process of making strategic decisions in education." It is the outcome of actions taken by the legislative branch of an independent state, with its decisions executed by the executive authority empowered through democratic elections (Pastuović, 1995). The complexity of creating an educational policy arises from the fact that it involves a compilation of multiple policies that are involved in the process from inception to adoption (Bell and Stevenson, 2006). Taylor et al. (1997, as cited in Bell and Stevenson, 2006, p. 13), have developed a framework for analyzing educational policy, encompassing an implementation model linked to the *sociological-political environment* from which the policy is created, a *strategic direction* that defines and determines success criteria, *organizational principles* which determine implementation methods, and *operating procedures* that govern policy enactment at the institutional level. Based on the hierarchical division of the four factors listed, the first two relate to the design, while the other two factors relate to the implementation of educational policy (Bell and Stevenson, 2006). Kovač (2007, p. 256) elucidates the triangle of factors contributing to educational policy adoption. These factors include *the policy's* tangible manifestation through the efforts of the competent ministry, the *practice* unfolding within educational institutions, and *research* as conducted by institutions dedicated to educational study. The triangle emphasizes the preeminence of political influence during the creation of educational policies in comparison to the other two factors, along with an insufficient number of researches on the topic. Research findings would enhance comprehension and yield more purposeful effects of educational policies (Kovač, 2007).

Once a well-defined educational policy is established, the subsequent step involves its operationalization within the system. In addition to legislative and administrative provisions, an educational policy also brings educational changes and reforms. Educational reform indicates a shift of a cultural, economic, and social nature (Paulston, 1976, as cited in Pastuović, 1995), while educational change is deemed reformative when it holds a structural impact on the entire educational system and the potential to influence learning outcomes (Pastuović, 1995). According to Saltman and Means (2019), framing reform as a mechanism to ensure societal sustainability, social dynamics, and lifestyle is warranted, particularly when education is perceived as a tool for achieving objectives for the future. Fullan (2007) perceives educational reforms as the skill to unify diverse actors through the implementation process. Reforms are primarily introduced due to the influence of capitalism and the hyperinflation of available jobs. Additionally, educational systems are often blamed for the gap between the competencies achieved at the end of the educational process and those required in the workplace (Klees, 2019). When implementing an educational reform, the expected outcome involves practice transformation, whilst three dimensions should be considered: materials, teaching methodologies, and beliefs (Fullan, 2007, p. 30). The author also points out that we should pay attention to those who shape reforms within the three dimensions. In this work, comprehensive educational reforms that were adopted as a part of educational policies due to the influence of globalizing trends and external evaluation are presented. Special attention is given to examining the approaches of connecting educational policies at the global level and the state's collaboration with external organizations that have influenced the dynamics propelling educational reforms. These dynamics are elucidated through a specific illustration, examining the Swedish education system.

## GLOBAL TRENDS IN EDUCATIONAL REFORMS

In the latter half of the 20<sup>th</sup> century, particularly during the 1980s, educational reforms were initiated so that countries could enhance competitiveness amid transitional periods. The comprehensive reform of education in England in 1988 stood out as it had an impact beyond its borders (Sahlberg, 2016). Author explains how the reform served as a foundational model for many other educational policies, especially with the development of market-oriented education. The underlying belief was that a market-oriented education would foster efficiency through diversity and equality. However, countries were faced with the challenge of achieving a standard (Sahlberg, 2016). Throughout the 20th century, education was organized without a particular connection or focus on improving teaching practice (Cohen et al., 2018). Authors attribute this phenomenon to the pressure to introduce a wider array of programs and tools, including curricula and tests, which bore the imprint of private companies. These companies were uninterested in collaboration or influenced by higher levels of education insufficiently attuned to the needs of lower levels. A third reason, according to Cohen et al. (2018), was a lack of societal incentives to define desired teaching forms and practices. Over time, the impact of globalization on education and educational reforms has grown significantly, and it brought forth both positive and negative outcomes. On the positive side, globalization provided the potential for the development of interactive educational methods and a negative aspect was linked to treating schools as business entities. Globalization can be defined as a phenomenon that introduces changes across various spheres of life – economic, cultural, or demographic (Stromquist and Monkman, 2014). The authors explain that the understanding of globalization primarily depends on the perspective from which we want to analyse it. Regardless of the perspective, its impact is evident on the perception of work, the development of communication and culture, and political connections. The trends of globalization, which have established standards within the market are mirrored in education. It is particularly evident in the trend of developing standardized teaching practices and methods (Sahlberg, 2016). Barber et al. (2012) explain how the standardization of fundamental subjects across global schools contributes to the competitiveness of individuals and nations in the market sphere. Furthermore, the implementation of external evaluations such as PISA, TIMSS, and PIRLS research has been associated with discussions around educational reforms (Breakspear 2012; OECD 2013; Sahlberg 2015, as cited in Sahlberg, 2016). However, Sahlberg (2016) emphasizes that while external evaluation can serve as a criterion for evaluating educational policies, it can also become an element for assessing broader educational success on a national scale. Saltman and Means (2019) discuss the trends of shifting policies towards privatization, the development of a uniform standard across all educational systems, and directing focus to the market. The authors highlight several phenomena in contemporary public education, including reduced funding, the introduction of technology, and the adoption of managerial behaviour. These trends are encouraged by global organizations like the OECD and the World Bank, who promote education reforms on a global scale. The progression of standardization, combined with the empowerment of external test results, has resulted in a significant shift in responsibility onto schools and teachers, who are perceived as the primary agents and investors in the educational process. However, the trend of diminishing student responsibility - which is necessary since it pertains to their learning and outcomes - is also notable (Sahlberg, 2016). The drive for coherence in schools has existed for many years. Throughout the 20th century, it manifested through managerial approaches to school administrations and the implementation of "top-down" reforms. This strategy appears to be aimed at maintaining control and optimizing efficacy (Cohen et al., 2018). The process of introducing an educational reform involves three phases. The *first phase* refers to the steps that lead to the decision to implement change. The *second phase* involves the initial implementation of the change. The *third phase* centers around the decision to either proceed with further implementation or to abandon the educational change altogether (Berman and McLaughlin, 1997; Huberman and Miles, 1984, as cited in Fullan, 2007, p. 65).

Understanding the methods employed by leading nations, such as England, in reforming their education systems has proven invaluable for countries with limited opportunities and resources. These countries often find themselves relying on external influences to establish standardized practices (Sahlberg, 2016). The process of transferring and adopting educational policies from one country to another can be termed the Global Education Reform Movement (GERM) (Hargreaves et al., 2001, as cited in Sahlberg, 2016, p. 132). The objective of GERM is to shape schools according to a consistent standard, characterised by frequent evaluations, financing, technological integration in learning and teaching, and reflection on the ways of ensuring accessible and high-quality education for all. Global scale reforms aim to establish an alignment among education, the capitalist economic system, and politics (Saltman and Means, 2019). It also seeks to establish a universal framework for shaping educational policies (Sahlberg, 2015; Verger et al., 2012, as cited in Klees, 2019). However, the negative impacts of capitalism have become apparent through various indicators. These include the decline of national economies (OECD, 2014, as cited in Saltman and Means, 2019), the concentration of resources controlled by a few in relation to the rest of the world's population (Oxfam, 2017, as cited in Saltman and Means, 2019), the displacement of professions and jobs due to technological advancements (Frey and Osborne, 2013; Elliot, 2015; World Bank, 2015, as cited in Saltman and Means, 2019) and living in precarious environmental conditions (OECD, 2014, as cited in Saltman and Means, 2019). The strategies that are a part of global educational reform, including the implementation of standardization, privatization, and an emphasis on human capital development, are seen as potential solutions to the aforementioned issues (Saltman and Means, 2019). Sahlberg (2016, pp. 132–133) identifies three sources that drove the development of GERM. First, the transition from behaviourism to constructivism, which places a greater emphasis on student-centered teaching and the development of profound knowledge and skills. Second, the pursuit of universal education that is both effective and high in quality. And third, the decentralization of state influence over schools, resulting in a shift towards localized management that grants schools more autonomy. The rise of neoliberalism and the growing concern about inequality in education have shifted the focus towards enhancing education's efficiency (Klees, 2019), where reforms are being influenced by business-oriented concepts (Klees, 2008, as cited in Klees, 2019). Au and Ferrare (2015, p. 8) establish a connection between the neoliberal organization of the state and the implementation of education reforms, which are taking on business-like characteristics. These characteristics involve the allocation of finances, the regulation of educational workers' unions, the approach to education as a competitive market, altering educational terminology to align with economic terminology and more.

Sahlberg (2016, p. 133–136) identifies the five most common characteristics of education reforms throughout the years. These characteristics encompass the heightened competitiveness among schools to attract students, the establishment of a uniform standard for teaching and learning, the prioritization of mathematical, scientific, and reading literacy, the implementation of managerial approaches within school, and the responsibility of teaching staff and schools for test results and achievements. The standardization of educational practices has facilitated the incorporation of external evaluation criteria into the assessment of educational quality, integrating it into educational policies (Sahlberg, 2016). This has established the groundwork for achieving measurable and comparable outcomes across different educational systems (Sahlberg, 2011, as cited in Saltman and Means, 2019). The tendency towards standardization ensures that the emphasis on outcomes and external evaluation increasingly dictates how teachers should teach and the pedagogical principles they should adhere to (Robertson and Sorensen, 2018, as cited in Singh et al., 2019). When discussing a focus on outcomes, we are considering the importance of learning outcomes in education (Harris and Clayton, 2019). The authors explain that, beyond influencing the assessment

of subject acquisition, a focus on learning outcomes shapes the curriculum, raising the question of how the comprehensive development and knowledge of students can be summarized through a set of competencies that constitute learning outcomes. While the standardization of educational reforms was intended to bring uniformity and equal opportunities for all, Croft et al., (2015) believe that it has resulted in intensified pressure for both students and teachers. By emphasizing mathematics, science and reading literacy, educational reforms clearly indicate their core direction (Sahlberg, 2016). Barber et al. (2012) explain that the aspired standard ensures equal foundations for everyone, facilitating a smoother transition to the labour market in further development. The authors elaborate that this marks a significant shift from the past century when only few individuals were selected and directed towards higher education. Saltman and Means (2019) elaborate on how subjects that foster creative, critical, analytical thinking, and judgment are being substituted with natural science courses that prioritize standardized outcomes. Managerial control within schools can be observed through the assimilation of business-related practices. This translates to fostering a competitive environment, allocating financial resources to those who work harder, and dismissing those whose results fail to meet established standards (Sahlberg, 2016). Education, like many other areas of development within the state, is increasingly aligning and directing its progress towards the market (Wise, 2015). The ability to choose a school based on performance is an example of market orientation aimed at increasing school efficiency and equality in education (Oplatka 2004; West and Ylönen 2010, as cited in Wise, 2015). However, others reflect on the potential social divide and inequality that may arise when schools fail to achieve expected high results (cf. Gibbons et al., 2005; Gorard 1997, cited in Wise, 2015).

Sahlberg (2016) explains that GERM is characterized by several primary principles, including the pursuit of a uniform standard applicable to all, a focus on fundamental aspects of education, the introduction of established reforms, and the cultivation of competitiveness within schools. The implementation of GERM led to the interconnection of policies on a national level, facilitated by a multitude of for-profit, non-profit, and business organizations that determine educational development (Saltman and Means, 2019). The authors also emphasize the evolving role of education, which places it in subservient position to economic development and progress. The acceptance of GERM stems from its emphasis on learning and educational services facilitated by managerial control. The consequences of this movement are dual-fold. On one hand, it has encouraged the development of equitable and high expectations for all students, prompting more profound reflection regarding the methods teachers employ in their teaching practice. On the other hand, the problem of limitations within teaching practices appear due to predefined standards within curricula, procedures, and by focusing on distinct objectives and taking test results as the only principles of quality evaluation (Sahlberg, 2016). Fullan (2007) suggests that the results derived from educational reforms should not be universally applied as absolute standards, but rather perceived as guidance or indicators of particular success within specific context. Klees (2019) highlights the significance of contemplating the initiators of educational reforms, which play a pivotal role in shaping educational policies. The author also examines a specific influential organization, the World Bank, and elucidates its mechanisms of influence through financial disbursement and the publication of reports that steer the course of educational development. As a consequence of this approach, there is an increased emphasis on fostering human capital development (Klees, 2016, as cited in Klees, 2019). Klees (2019) critiques the emphasis on human capital by pointing out two main aspects. First, he questions the selection of skills that are emphasized as valuable and the development of a uniform value attributed to education. Second, he

states that the significance of cultivating skills like literacy, critical thinking, and teamwork lies in their relevance to the actual job opportunities that are being generated. Moreover, he raises concerns about an exclusive orientation of education towards market purposes and needs. Education is a complex process involving the construction of knowledge and the transmission of meaning, primarily occurring between educators and students. Within this dynamic, knowledge, opinion, and cultural influence is formed. It is unrealistic to expect that education remains devoid of values, as it emerges from the interactions of various participants operating within predefined guidelines. These guidelines possess their own values and objectives, proposing the transmission of pre-assessed, essential, and sought-after knowledge through the framework of Global Education Reform Movement (GERM) (Saltman and Means, 2019).

## **EXTERNAL EVALUATION OF THE QUALITY OF SCHOOL WORK**

While the significance of comprehending society and its historical context for interpreting educational reform was previously underscored (Moon and Murphy, 1999, as cited in Haugsbakk, 2013), this perspective is now viewed within a broader framework, encompassing influences that extend beyond the state or internal factors (Haugsbakk, 2013). The increased autonomy and decentralization of schools have brought about a need to determine the efficacy of school operations and the quality of teachers' work. In response, the implementation of external evaluation tests emerges as an answer (Eurydice, 2009, as cited in Sahlberg, 2016). Through such processes, decisions are made that can either improve and support the functioning of schools or question their effectiveness. Undoubtedly, one clear accomplishment has been the establishment and impact of external evaluation tests and their outcomes on the formulation of national educational policies (Barber et al., 2012). Additionally, the outcomes of standardized tests bring about a context where students, educational systems, including staff members, find themselves situated within a milieu of comparison and competition (Au, 2009, as cited in Au and Ferrare, 2015). The shift of focus towards the process of reform, rather than solely on outcomes, has contributed to the widespread acceptance of such endeavours in society, a situation often exploited by political leaders (Haugsbakk, 2013). Eurydice (2009) explores three streams of influence stemming from national tests results: their impact on students and their educational opportunities, their impact on individual schools within the jurisdiction of the state; and their impact on the education system as a whole.

In Europe, standardized tests are used as a tool for systematically measuring and monitoring the quality of educational systems through the assessment of student achievements (Eurydice, 2009). The justification for using standardized tests is their objectivity and reliability in assessing student knowledge, in contrast to assessments derived from teacher monitoring, checking and evaluation (Au and Gourd, 2013). Standardized tests have achieved a significant impact through educational reforms, encouraging a focus on the development of comprehensive educational policies for the purpose of decentralization, democracy, and school autonomy. Consequently, these tests have become tools for evaluating the effects of the educational process and the system (Eurydice, 2009). Analysing the implementation of national tests across Europe, Eurydice (2009, p. 8) categorizes the tests into three groups. The first group refers to tests conducted at the end of an educational cycle, providing a summative result which that can influence a student's future educational trajectory. The second group encompasses tests whose outcomes are utilized to assess the quality of schools, teaching methodologies, and the educational system as a whole. The third group of tests serves a formative purpose, providing information about a student's educational potential and needs. Eurydice (2009) states that most national tests are conducted to

determine educational pathways available to students upon a conclusion of a specific educational phase and to undertake systematic monitoring of the entire education system.

According to OECD (2014), the adoption of evaluations, whether on a national or international scale, has become a well-established practice aimed at providing data regarding the state of the education system, its effects, and offering specific guidelines for decision-making and the implementation of strategies that enhance educational quality (Van Gasse et al., 2018; Verhaeghe et al., 2010, as cited in Olafsd et al., 2022). Eurydice (2015) explains that the evaluation of schools offers valuable insights into the educational system, thereby facilitating its improvement and future planning in alignment with the state's educational policy. The external evaluation of schools is executed across 26 European countries, analysing school activities, attainment of prescribed learning outcomes, teaching quality, adherence to established measures, and more (Eurydice, 2015). The process of implementing external evaluation consists of analysis, on-site visitation to the institution, and the issuance of a final report (Eurydice, 2015, p. 2). Upon completion of this process, each country's education system determines whether the final report will be public, accessible upon request, or a private document of the national system (Eurydice, 2015). When analysing evaluation results, it is important to keep in mind that they should not serve as the sole basis for making decisions. This is because they might not be entirely objective and can only provide insights within a specific timeframe (Krell, 2000). Therefore, Krell (2000) explains that evaluation results can be seen as indications of the potential changes and achievements. The value of implementing and evaluating lies in effectively utilizing the data to enhance education (Olafsd et al., 2022). The authors identify four ways of utilizing the results: instrumental, conceptual, persuasive and supportive (Olafsd et al., 2022, p. 2). The instrumental application of evaluation results is relevant within the framework of this work. It involves using the evaluation findings to introduce changes within educational policies, teaching practices, leadership and management regulation, fostering increased cooperation, and more. (Dedering and Müller, 2011; Ehren and Visscher, 2008; Ehren et al., 2015; Matthews and Sammons, 2004; McCrone et al., 2007; Ofsted, 2015; Van Gasse et al., 2018, as cited in Olafsd et al., 2022). However, the true impact of external evaluation can be expected when both a supportive environment for implementation is established and there is a genuine acceptance of evaluation results and recommendations (Hofer et al., 2020, as cited in Olafsd et al., 2022).

## **SWEDISH EDUCATION SYSTEM**

The Swedish education system is organized as a ten-year schooling program (Swedish Institute, 2022), beginning with preschool for children under the age of 6. At the age of 6, students have the option to attend so-called preschool classes, which prepare them for primary school (OECD, 2015). The period of attending primary school lasts for 9 years, starting at the age of 7, and is both free and compulsory. Mandatory education also includes Summit Schools, which cater to students with disabilities and learning difficulties (OECD, 2015). A change in the education system has been implemented by allowing parents to choose the school their child attends, ensuring the independence and competitiveness of schools (West, 2014). While the school a student attends is usually determined by their place of residence, admission criteria can vary for independent schools when the number of applications exceeds the enrolment quota. Factors such as waiting time on the enrolment list for a place in the desired school or whether siblings are already attending the same school can influence admission decisions (Båvner et al., 2011, as cited in West, 2014). Secondary education, with 18 different programs, offers specialization in vocational skills or foundational knowledge for further higher education (OECD, 2015). A distinctive feature of Swedish educational institutions is the increasing number of independent schools, known as *Friskola* (Swedish Institute,

2022). According to West (2014), independent schools are predominantly owned by companies or joint-stock companies, while others are owned by foundations, non-profit organizations, and the like. Notably, there are differences in the student population between independent and state schools. Within independent schools, a larger proportion of the population consists of female students, students' parents are more often highly educated, and there is a higher representation of students with foreign backgrounds within families (West, 2014). Irrespective of whether a school is private, state-funded, or independent, all of them fall under the oversight of the School Inspectorate. This entity is responsible for ensuring that schools operate in alignment with the national curriculum and the Swedish Education and Discrimination Act. The Act mandates that the heads of educational institutions assume the role of protecting children's educational rights and promoting human rights within the educational context. These bodies include: the Ministry of Education and Research, the Swedish School Inspectorate, the National Agency for Education, the National Agency for Special Educational Needs and Schools, the Swedish National Agency for Higher Education and the Sami School Board (Swedish Institute, 2022).

The evaluation of Swedish students' educational achievements involves various methods, including grades, national, international, and specialized testing (Holmlund et al., 2019; Björklund et al., 2010, as cited in Boman, 2022). Consequently, the concept of external evaluation in education is not unfamiliar in Sweden (Marklund, 1992, as cited in Haugsbakk, 2013). Despite high student attendance and the attainment of high levels of education, factors such as social inequality and an increasing number of migrants in society are exerting a growing impact on the assessment of educational achievements through PISA research (Skolverket, 2016, as cited in Boman, 2022). The utilization of external evaluation as a catalyst for educational reforms (Scriever, 2003; Steiner-Khamsi, 2014, as cited in Wahlström and Nordin, 2022) is evident. In Sweden, the process of educational reform is not only triggered but also guided by recommendations from organizations like OECD (Wahlström and Nordin, 2022). This makes the Swedish education system a prime example of how external evaluation results, specifically those from the PISA 2012 survey, can play a pivotal role in instigating and shaping educational reforms.

## **ANALYSIS OF PRIMARY AND SECONDARY SOURCES IN EDUCATIONAL POLICY AND PRACTICE**

Given the extensive number of systematic analyses addressing areas such as methods of teaching and learning, school organization and structure, learning phases, and different student groups (Davies et al., 2000, as cited in Davies, 2000), these analyses are directly linked to educational research (Smith and Glass, 1980; Glass et al., 1982, as cited in Davies, 2000). Educational policy, aimed at developing education based on reliable facts and outcomes, involves a fusion of knowledge and skills developed in teaching and learning practices, as well as conclusions derived directly from systematic analyses of changes within education. The contribution of systematic analyses is also recognized in that they consider contexts significant for the development of education, making decisions about changes in education more effective (Davies, 2000).

The problem of systematic analysis of primary and secondary sources of educational policy and practice is related to the configuration of educational policies and the significance of the interconnected sequence involving the adoption of educational policies their execution, and the outcomes of external evaluation. In comprehending the interplay among these processes, a solid grasp of the theoretical underpinnings of standardized testing and external evaluation is crucial, along with an understanding of the outcomes arising from the application of external evaluation



systems within distinct educational contexts. These interdependencies can be illuminated through the illustration of a representative educational system.

The objective of this analysis is to attain a comprehensive understanding of the implementation methodology and outcomes of external evaluation within the Swedish educational system. This aims to address the inquiry into how these aspects interrelate, based on the existing theoretical understanding of educational policies and their impact on educational reforms, through the process of systematic analysis of relevant literature.

As a part of the methodology, a systematic analysis of primary and secondary literature pertaining to Sweden's performance in the PISA surveys of 2012, 2015, and 2018 was undertaken. A systematic search of the OECD database available at <https://www.oecd.org/pisa/>, was conducted to acquire primary data concerning student achievements within the Swedish context. Furthermore, the searching of google.scholar.com with the key words such as *Sweden on PISA*, *external assessment in Sweden*, and *2012 reform in Sweden*, yielded insights into previously conducted scholarly analyses concerning Sweden's outcomes in the PISA survey, as well as the impact of the PISA survey on educational reforms within the Swedish educational system (table 1).

**Table 1**

*Primary and secondary used sources*

source	type	description
Breakspear (2014)	literature review	An analysis of the impact of the PISA survey on the design and implementation of educational reforms through the acceptance of its reputation and acceptance as an authoritative evaluation instrument.
Henrekson and Järvvall (2016)	literature review	An analysis of data related to Sweden's results on the PISA survey until 2016 and their interpretation in relation to the standard or average scores of other OECD countries on the PISA survey.
Wahlström and Nordin (2022)	quantitative and qualitative study	An analysis of OECD reports and literature sources from the School Commission in Sweden to illustrate the initiation and adoption of reforms due to external influences on Sweden's educational policy.
Lundahl and Serder (2020)	qualitative study	An analysis of newspaper and protocol sources to demonstrate how the results of the PISA survey are used as a catalyst and support for reforms, as well as a valid gauge of the educational system's quality in Sweden.
Swedish Institute (2022)	web page	An overview of the structure of the educational system in Sweden, including the mentioned administrative bodies, and general insights into reform procedures and changes.

Boman (2022)	quantitative study	A comparison of the results of Sweden and 31 other countries in the PISA 2015 and 2018 surveys, with the objective of identifying the factors contributing to Sweden's high success, their interrelation with other countries, and the influential factors associated with success in mathematics on the PISA survey.
OECD (2016)	data report	A report and analysis of Sweden's results in the PISA 2015 survey, along with an examination of the key influencing factors (funding, equality of opportunity, immigrants, the relationship between public and private schools, and educational policies and practices) contributing to student success.
OECD (2019)	data report	A report and analysis of Sweden's results in the PISA 2018 survey, along with an examination of changes in Sweden's result trends in the PISA survey. This includes an analysis of connections between socioeconomic status, gender, and origin in relation to the achieved results and examination of the significance of the school's role in the lives of students in Sweden.
OECD (2023)	data report	A report and analysis of Sweden's results in the PISA 2018 survey, along with the examination of the main factors contributing to the achieved results in specific areas of the PISA survey.
Haugsbakk (2013)	literature review	A comparative analysis of the impact of technological advancements on the shaping of educational policy and the assessment of education outcomes.
Tveit and Ludahl (2017)	qualitative study	An analysis of methods for shaping and adopting educational policies with legal support and collaboration with external entities, specifically organizations within the framework of student evaluation provisions.
OECD (2015)	data report	A report assessing Swedish education based on the OECD's perspective, aimed at offering support and guidance for advancing the Swedish education system in response to the decline in results from the PISA 2012 survey.

## SWEDEN'S RESULTS IN THE PISA SURVEY

Breakspear (2014) identifies the PISA survey as a widely recognized benchmark for evaluating both educational systems and educational policies. It also provides valuable information on student achievements, allowing for temporal comparisons of data. Moreover, it provides recommendations for educational strategies, an aspect of particular interest to educational policymakers (Henrekson and Jävervall, 2016). Initiated by the OECD in the year 2000, the PISA surveys are conducted every three years to offer comparative insights from 60 educational systems

regarding the attainment of competencies that are vital for contemporary life, particularly in the domains of mathematics, science, and reading literacy (Breakspear, 2014). The impact of the PISA survey is substantial, as it establishes a connection between the rankings of results and the perceived quality of individual education systems (Breakspear, 2014). PISA surveys have been a part of the external evaluation of Swedish education since 2000, and while the results initially demonstrated a strong position, they gradually declined until reaching a peak of the decline according to the results from 2012 (Henrekson and Järvall, 2016). The authors believe that such results serve as evidence of long-standing issues within Sweden's educational system. In 2012, Sweden was ranked 38th in mathematics, 36th in reading, and 38th in science literacy among a total of 65 countries that participated in the survey that year (OECD, 2014, as cited in Henrekson and Järvall, 2016, p. 11). Henrekson and Järvall (2016) explain that grade inflation which occurred during this period is an additional problem. The authors noted a discrepancy between the outcomes of the PISA survey, which were low, and the final grades of the same generation, which were exceptionally high. The results presented by the PISA survey for 2012 initiated critical discussions about the state of the Swedish education system (Wahlström and Nordin, 2022). Lundahl and Serder (2020) liken the period following the PISA 2012 results to a state of chaos, emphasizing the need for change. Following the implementation of revisions and reforms within the education system in 2015 and 2018, Sweden's results on the PISA survey demonstrated a certain improvement, achieving results similar to those in 2006 and 2009 (Boman, 2022). The PISA 2015 survey marked the first instance of utilizing computer-based assessments in 72 countries, with a focus on evaluating science literacy, in addition to mathematics and reading. Moreover, an extra component centered on problem-solving was incorporated (OECD, 2016). According to the OECD report titled *Country Note SWEDEN*, Sweden demonstrated an improvement in results across all subject areas, either matching or surpassing the average performance of OECD countries (OECD, 2016). Furthermore, the report emphasized a high level of effectiveness when comparing time spent in learning and teaching activities to the growth in learning outcomes among highly effective and less effective students (OECD, 2016). Sweden's PISA 2015 results were 493 points in science and 494 points in mathematical literacy, aligning with the OECD average, and 500 points in reading literacy, surpassing the OECD average (OECD, 2016, pp. 2-3). The OECD report (2016) provides insights into the contextual factors that contributed to Sweden's improved results. Notably, Sweden stood out with its notable high investment in education per student, securing its position in seventh place globally. However, the report also shed light on some critical issues which included disparities in educational outcomes among students with varying degrees of privilege, the impact of immigrant students who achieve lower results in comparison to other students, and a significant rise in the enrolment of students in private schools, which increased from 8% to 15% between 2006 and 2015. The results of Sweden in the PISA 2018 survey are mentioned in the *Country Note SWEDEN*, an OECD report (OECD, 2019). This report states that Sweden's results surpassed the average achieved by the other 78 OECD countries that participated in the survey that year (Boman, 2022). The primary focus of the PISA 2018 survey, in addition to the standard subject areas, was reading literacy, with an added component of assessing global competences, which Swedish students did not partake in (OECD, 2019). The report (OECD, 2019) also notes an improvement in results between 2012 and 2018. It is evidenced by an 8% decrease in the number of students achieving lower results and 5% increase in the number of students achieving the highest levels of mathematical literacy. However, the report also suggests that there is a need for further investment in achieving better results in the fields of science and reading literacy (OECD, 2019). Additionally, it highlights a significant increase in the number of immigrants within the country, consequently leading to a higher number of immigrants participating in education. The report correlates this trend with an exclusion rate of 11% among students in the PISA survey, which stands out as the highest among the participating countries. More detailed information on the most recent results of the PISA

survey can be read in the OECD report on the PISA 2018 survey generated through the OECD Education GPS. The OECD report (2023) emphasizes the following results of Sweden in the PISA 2018 survey: reading literacy at 506 points (compared to the OECD average of 487), mathematics at 502 points (compared to the OECD average of 489), and science at 499 points (compared to the OECD average of 489). It is worth noting that girls achieve significantly better results in reading and science literacy compared to boys. Furthermore, the report (2023) describes the results that position Sweden at either the top or bottom based on specific criteria. For example, Sweden ranks among the highest in terms of the shortage of teaching staff and exhibits the largest disparities in results attributed to socioeconomic and cultural influences. Conversely, Sweden records the lowest results in categories such as the lack of educational materials, attendance rates at private schools, and the practice of grouping students by ability in particular subject areas (OECD, 2023). The most recent OECD research, the PISA 2022 survey, was conducted in September 2022, with more than 80 countries involved, including Sweden. The results have yet to be published and are anticipated to be released in 2023.

### **EDUCATIONAL REFORMS IN SWEDEN**

Haugsbakk (2013) examines the impact, or more specifically, the shock that can arise from the results of the PISA survey. The author draws a historical analogy, likening it to the period when the Soviet Union's successful launch of the Sputnik satellite took the United States of America by surprise, leading to what is now referred to as the *Sputnik shock*. The failure to achieve a pioneering role in space exploration was attributed by the Americans to shortcomings within their educational system (Haugsbakk, 2013). This line of thinking persists today, where the results of the PISA survey often become the main reason for initiating educational reforms and political discussions regarding the state of the education system (Haugsbakk, 2013). Tveit and Lundahl (2017) explain how Sweden's participation in international assessments like the PISA survey has shaped and evaluated educational policies, influenced by demands and collaborations with external organizations such as the OECD and the European Union. By framing the PISA survey as an assessment of life-relevant knowledge, the Swedish education system positioned itself as lacking in competence. Consequently, the OECD became the leader of the reform (Wahlström and Nordin, 2022). Due to the establishment of a strong reputation, PISA surveys have gained a high level of reliability, which often leads to the initiation or advocacy of educational reforms based on the achieved results (Breakspear, 2014). The power of the influence of the PISA survey is underscored by findings from the study conducted by Pizmony-Levy and Bjorklund (2018, as cited in Lundahl and Serder, 2020). This study, based on data collected from 30 countries, reveals that societal perceptions of education and its value are significantly influenced by the outcomes of the PISA survey. Based on their own research, Lundahl and Serder (2020) conclude that the Swedish education system is heavily guided by the results of the PISA survey. Through an analysis of published reports, the authors identify a consistent rise in publications centered around PISA research and education, with a peak occurring in 2016. The authors attribute the surge of interest in 2016 to its dual significance as a political election year and as a period marked by heightened debates about an educational crisis (Wiklund, 2018, as cited in Lundahl and Serder, 2020), which was catalysed by the decline in the PISA 2012 survey results.

According to the Swedish Institute and its available data (2022), education in Sweden underwent an extensive process of review, evaluation, and reform in 2011, when the Swedish Education Act was established. The changes introduced during this reform included the augmentation of criteria for teachers within the formal framework, a heightened emphasis on health and freedom of choice, modifications to the objectives, guidelines, curriculum plans and programs, and additional evaluation of student progress in compulsory subjects during the sixth year of

education. Simultaneously, assessments during the third and ninth years were retained. Furthermore, alterations to the grading system were introduced, leading to the establishment of a grading scale spanning from A to F. This system parallels the grading methodologies currently employed in European higher education through ECTS points (Swedish Institute, 2022). The preface of the OECD document *Improving schools in Sweden: An OECD perspective* (2015) introduces us to the story of Sweden's significant decline in results following the PISA 2012 survey. This decline initiated an intensive cooperation with the OECD organization, aimed at evaluating the nation's educational policies and practices in order to arrive at a consensus on the reforms to be undertaken (OECD, 2015). An example of such actions, involving a comprehensive reform of education policy is known in the literature as the *PISA shock* (Breakspear, 2014, p. 7). As assessed by the OECD (2015), the implementation of reforms was deemed insufficiently comprehensive. The process of evaluating the state of Swedish education unfolded in several stages, involving the submission of initial reports to Sweden, visits by OECD teams in October 2014, and idea exchanges and consultations (OECD, 2015). The report analyses the strengths and challenges of the Swedish education system and presents a reformation plan, which depends on achieving quality through equality, a plan to enhance professional development and support for teachers, and a plan to work on the control of educational policy and schools (OECD, 2015, p. 3). Additionally, the OECD (2015, p. 7) explains how forthcoming reform procedures can be built upon the education system's positive aspects, highlighting the recognition of reform necessity and the prioritization of inclusive education that centers on students and their needs rather than challenges. Among the biggest challenges, the OECD (2015, p. 7-8) singles out the progressive decline in PISA study achievements (resulting in below-average scores compared to other OECD countries), the complex position of teachers concerning their societal perception, along with issues like responsibility, workload, and compensation, as well as the necessity to develop a collective comprehension of education's purpose and outcomes at the national level. The document (OECD, 2015) provides recommendations and a detailed analysis geared towards guiding actions within the education policy framework. The report's findings influenced the work of the School Commission, which was assigned with the task of formulating an education reform strategy based on the insights of the OECD report (Wahlström and Nordin, 2022). Wahlström and Nordin (2022) analysed the OECD report (2015) and the School Commission's documents (2017), revealing a high degree of similarity, primarily in the materials published by the OECD. An example of a specific educational reform that was introduced and justified subsequent to the results of the PISA 2012 survey was the change in the timing of student assessment. Instead of starting in the eighth year, the assessment was initiated from the fourth year of education. The change was guided by the recommendation of neuroscientist and professor Martina Ingvara, whose opinion was partially grounded on assessment data from OECD countries and Europe (Tveit and Lundahl, 2017). However, the authors emphasize that the basis for the change in the assessment system was not found within the OECD documents. Lundahl and Tveit (2018), building upon Lundahl and Serder (2020), explain how this decision, which has been a source of controversy for several years, was actually rooted in the performance of Finnish students on the PISA survey, who employ an earlier assessment approach. Wahlström and Nordin (2022) conclude that over time, the OECD has developed a reputation as an authoritative organization for appraising the quality of education and determining the direction of Swedish education's evolution. Tveit and Lundahl (2017) emphasize that, regardless of the agency or organization proposing educational system reforms, those involved in shaping educational policies are the ones who determine which data should be used and in what manner, for the purpose of justifying and implementing reforms.

## CONCLUSION

Understanding the field of educational policies sheds light on the complex nature of implementing educational reforms. This involves comprehending various actors who promote these reforms and their roles, as well as the dynamics of decision-making and the implementation of reforms within the education sector. It is evident that various promoters have a desire to embed their interests within educational programs, so it is important to understand the impacts of economics, ideology, and culture on policy formation (Bell and Stevenson, 2006). Guiding educational development based on the comparative analysis of broader trends results in a global integration of activities and the formulation of universally applicable reforms aimed at standardization and preparing students for the global market. The practice of sharing educational policies across countries is evolving, leading to the direct adoption of changes from one system to another. A favourable environment of collaboration among states and organizations is being cultivated, with the goal of evaluating educational systems on a global scale. This makes the process more challenging as it necessitates highlighting the prospects of success within one's own system (Williams, 2017). These tendencies pave the way for the utilization of standardized testing as a legitimate method for assessing and contrasting results within frameworks that transcend national borders. Through continuous implementation, standardized tests have firmly integrated themselves into the educational process, and their results are analysed in research to inform the formulation of reform strategies. Among them, the PISA survey organized by the OECD stands out in particular. This survey aims to conduct standardized tests on fifteen-year-old students to assess the effectiveness of education over time based on data obtained from three different areas. The ultimate goal is to provide suggestions for reforms to improve the education system. Additionally, surveys of this nature have become primary proponents of educational system reforms, with a strong market-oriented focus. These reforms increasingly emphasize differences in student achievement, while shifting responsibility to teachers and educational institutions, which, in turn, contributes to a decrease in the reputation of the education system, teaching practices, and teacher education programs (Croft et al., 2015).

This paper analysed the relationship between external evaluation of student achievements and educational reforms, specifically how external evaluation influences changes within educational systems. In the scope of this paper, the context of the Swedish educational system was selected. Sweden has been utilizing external evaluation of education in its national educational development for many years, which is evident through its participation in the PISA survey since its inception in 2000. By analysing OECD reports on Sweden's achievements in the PISA survey and conducting a systematic literature review on reform processes initiated due to the publication of Sweden's PISA results, this study aimed to explore the connection between external evaluation and educational reforms. The results of the PISA 2012 survey proved to be extremely significant, leading to a series of reforms that affected the entire educational system. Based on the analysis of a larger number of studies, Lundahl and Serder (2020) explain that the interplay between the PISA survey and educational policy has gathered interest from various studies. This attention stems from a sequence of results that indicate the deliberate use of survey results to shape and develop the educational system. It is demonstrated how certain educational systems, despite the inherent complexity in adopting reforms, decide to base the need and structure of reforms on the results and reports of external assessments. This highlights a shift in the evolution of the impact of external evaluation, moving from its initial role as an assessment parameter for education to its present role as a more direct criterion for assessment and educational changes. The study has illustrated the potential influence of external evaluation of student achievements, which now goes beyond merely prompting discussions about education system reforms; it also serves as a catalyst for implementation and even questions the justification of such practices. Moreover, the paper emphasizes the importance of valid interpretation of evaluation reports to substantiate educational reform decisions.

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