



Website Quality Assessment Instrument for School Choice Websites: The Case of SAE in Chile

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Abstract. Centralized school choice platforms have significantly transformed the school application process, forcing families to transition from physical applications to unified digital ecosystems. This scenario demands new and complex digital and informational literacy skills. Academic literature consistently suggests that the content, usability, and information architecture in these systems directly influence parental attitudes, stress levels, and decision-making. This article details the methodological development of a website quality assessment instrument specifically designed for centralized school choice platforms, based on expert heuristic analysis and a functional approach. To achieve this, we integrated techniques of systematic literature review, analysis of international benchmarks, and the formulation of a sociodemographic user archetype based on web analytics and a survey. This instrument was empirically validated through its application to the School Admission System (SAE, for its acronym in Spanish) of the Chilean Ministry of Education. The results demonstrated the instrument's effectiveness in evaluating specific domains, detecting that, although the analyzed ecosystem fulfills operational algorithmic functions, it presents opportunities for improvement: the informational site only achieved 51% overall compliance and the transactional platform 61%, evidencing gaps in accessibility, interoperability, audiovisual content, inclusion, multilingualism, and online assistance, generating potential cognitive barriers and user experience problems for parents and guardians.

Keywords: School choice, website quality, heuristic evaluation, SAE.

1 Introduction

Globally, school choice has undergone a profound digitalization process. In Chile, the implementation of the School Admission System (SAE) since 2016 has forced families to register, search for, and prioritize public and government-subsidized private schools through a standardized transactional web platform [1]. This virtual environment requires substantial digital literacy to engage in complex interactions [2], as well as critical information literacy skills to successfully compare and weigh multiple educational variables [3].

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Various authors in the fields of education and public policy agree that the information architecture on these official platforms serves as a powerful behavioral determinant shaping family decisions. For instance, in their experimental research, Glazerman et al. [4] demonstrated that subtle changes in the visual presentation of data—such as the use of icons or the default sorting order when displaying schools by distance versus academic performance—can drastically alter the school that parents ultimately select.

Interestingly, international evidence is mixed regarding the provision of information volume: while studies in Europe warn that a higher amount of data does not improve parental empowerment and can generate user dissatisfaction [5], in the Chilean case, it has been reported that families actively demand even more information to carry out the process with confidence [6].

However, as Corcoran and Jennings [7] warn, complex informational requirements frequently act as an entry barrier, generating cognitive overload, especially for guardians with lower educational levels, who often cite the lack of clarity on platforms as the main obstacle to participating on equal terms.

Given this challenging scenario, the central objective of this article is to present the detailed development of a heuristic or expert evaluation instrument, specialized in the website quality [8] of school choice platforms, and to empirically validate its effectiveness through its application to the digital ecosystem of the SAE in Chile.

2 Methodology

To design an instrument to evaluate the functional website quality of school choice portals, a combination of techniques based on expert analysis or heuristic inspection was developed [9, 10]. This method is executed by specialized evaluators based on a set of industry guidelines and best practices, and its construction is grounded in the triangulation of multiple sources to isolate the critical factors of this sector, following the comprehensive evaluation proposal by Morales-Vargas et al. [11].

First, a systematic review was conducted under the PRISMA methodological framework [12] in multidisciplinary databases. The qualitative analysis revealed a significant theoretical shift: school websites are no longer viewed as mere data repositories but are analyzed through "signaling theory," in which design, usability, and content shape public perception and guide empirical behavior [13]. By systematizing the information needs that the literature considers critical, a clear hierarchy of factors was identified: student performance or academic quality leads the preferences (10 mentions in the literature), followed by school safety (8 mentions), teacher quality and credentials (7 mentions), territorial proximity to the home (6 mentions), and values and infrastructure (4 mentions). Additionally, studies such as those by Hastings and Weinstein [14] and Delale-O'Connor [15] show that simplifying data delivery exponentially increases the positive impact on decision-making, suggesting architectures based on progressive disclosure.

Second, to establish a global standard, a comparative analysis and benchmarking against international references were conducted. Robust platforms were examined, such

as MySchools in New York and GoCPS in Chicago, United States; eAdmissions in the United Kingdom; Studyinfo – Opintopolku in Finland; Toezichtresultaten Onderwijsinspectie in the Netherlands; Education Counts in New Zealand; and South American platforms such as Matrícula Online in Recife, Brazil. This exercise determined that the global standard incorporates five unavoidable characteristics: strict single-window centralization, allocation through transparent algorithms, objective prioritization rules, active reduction of information asymmetries through detailed directories, and a design strictly conceived under the mobile-first philosophy.

Third, web analytics and real user analysis were incorporated. Data extracted from the SimilarWeb tool showed that the Chilean SAE receives 61.89% of its traffic from mobile devices and relies on organic Google searches for 70.86% of that traffic. These data were methodologically triangulated with the descriptive report of the School Admission Guardians Survey [16, 17] to model a user archetype: a 35-year-old working mother of medium-low socioeconomic status, highly skeptical of the system—perceived as a "lottery"—who accesses via mobile phone at the end of her workday, prioritizing factors such as safety, location, and school prestige over purely academic metrics.

Finally, the instrument's structure aligned with the "Website Quality and Digital Services Evaluation Model" of the Government of Chile [18], which comprises 20 general quality dimensions—Clear content and language, Usability, Web accessibility, Information architecture, Search and findability, Mobile responsiveness, Design and institutional image, Security, Technology, Citizen services, Gender perspective, Audiovisual content, Promotion, Impartiality and equal treatment, Inclusion, Response time, Interaction and feedback, Error prevention, Transparency and openness, Ease of access and technological independence—and 163 differentiated indicators. To this articulated set of attributes, a specialized school choice inspection module was added (Table 1), requiring the standardized verification of parameters such as results from the standardized education quality measurement test—SIMCE, in the case of Chile—, infrastructure, environmental safety, teacher quality, vacancies, and intuitive visibility of the institutional educational project.

Table 1. Specific assessment instrument for school choice websites.

Parameter	Check questions
Academic quality	Are the school's results in standardized tests and other quality indicators provided?
	Is there information regarding teacher quality, teacher training, and teaching-learning methods?
	Are extracurricular activities detailed?
	Are the attention actions for girls and boys with special educational needs made explicit?
Location	Does the school's location appear, and is a map of the surrounding area displayed?
	Is there an option to visualize the distance to the declared address?
	Can schools be sorted by their proximity to the declared address?

	Is there public transportation information?
Safety	Is there information about prevention plans or school safety measures? Is there information regarding the safety of the surroundings?¿Existe información sobre la seguridad del entorno?
Infrastructure	Are the relevant aspects of the school's infrastructure detailed? Square meters per student, classroom equipment, laboratories, computer rooms, libraries, gymnasiums, and others.
Vacancies	Does the number of available vacancies per level appear? Can the results be sorted by the number of available vacancies? Is the number of students per class declared?
Educational project	Are the distinctive characteristics of the educational project detailed? Is there information regarding values and discipline rules? Is its administrative dependence made explicit? Is its religious affiliation or orientation expressly declared?
Other aspects	Is there information on monthly tuition and enrollment fees? Is there a balance between the website's layout and the amount of information? Is there information on the characteristics of the student body? Is there information regarding the racial composition of the student body or the number of foreign students? Is there demographic information that allows for characterizing the student body profile? Is there information regarding student climate or school coexistence? Is the school catalog open, and can it be consulted without registration?

Source: own elaboration

3 Results

The specialized instrument was exhaustively applied to the SAE ecosystem in Chile, dividing the analysis between the informational public-access website and the transactional application platform, which requires user authentication via a user account.

Regarding the general evaluation of the informational website, the inspection yielded an average compliance rate of 51%, rated methodologically as "moderately satisfactory." Its strongest pillars were institutional graphic design and error prevention, both reaching 88%. However, the application of the indicators revealed significant structural deficiencies: for example, in terms of inclusion, it scored 0%, as the platform's main registration buttons and calls to action disappeared from the screen when subjected to a colorblindness emulator (Tritan filter). The search and findability dimension achieved 4% compliance due to the lack of an internal search engine and a site map. Additionally, it recorded accessibility problems with gray text on white backgrounds that fail the

W3C minimum contrast tests, and mobile responsiveness flaws, where menu boxes broke when viewed in vertical tablet mode.

On the other hand, the evaluation of the transactional application platform recorded a slightly higher performance of 61% ("satisfactory" level), highlighting its resolution capacity (98%) and its graphic design (92%). Nevertheless, when evaluated under the mobile archetype's stress scenario, it revealed technical shortcomings. The tool uncovered zero interoperability (0%), as it forces citizens to create separate credentials, fragmenting the experience instead of natively integrating with the State of Chile's ClaveÚnica. The most concerning functional finding related to ease of access and technological independence (29%): in emulations with low-speed networks, the transfer of information between the school information tabs took up to 7 seconds to load, and on narrow cell phone screens, academic data tables cut off the texts, making them incomprehensible.

Upon applying the specific evaluation module for school choice parameters [19, 20], it was verified that the SAE web platform successfully exhibits structured and "hard" data, such as standardized results (SIMCE), infrastructure details, enrolled vacancies, costs, and the exact distance to the home in kilometers. In contrast, it omits qualitative information demanded by parents in the literature [21, 22]: there are no concrete metrics on teacher quality, environmental safety measures are not observed, and the public transportation offer is not detailed. The heuristic failure with the greatest impact was the violation of the principle of "progressive disclosure" [4]: determining documents for understanding the school's characteristics, such as the educational project and coexistence regulations, are not displayed intuitively and summarized; instead, they force the user to download attached PDF files, interrupting the cellular navigation flow of vulnerable populations [23].

4 Conclusions

The empirical results from the instrument's validation confirm theoretical warnings: an official system that successfully fulfills its algorithmic function in school choice can, paradoxically, hinder parents' and guardians' experience and empowerment if its user interface lacks functional website quality. Flaws in visual contrast, the structural breakdown of data tables on small screens, slow loading speeds on mobile connections, and the obligation to download documentary annexes in PDF format collectively create major cognitive frictions that disincentivize deep reading. To achieve the excellence levels of international benchmarks, public platforms of the SAE's magnitude must integrate authentication through universal systems, optimize code weight to ensure latencies below three seconds, and incorporate the intensive use of explanatory texts in context (microcopy) and color-coded infographic elements that manage to summarize complex normative rules directly in the interface.

In conclusion, this study demonstrates that traditional technological audits are insufficient for single-window educational platforms unless they are complemented by specialized modules and indicators of user behavior throughout the application process. The methodological instrument presented here is effective for diagnosing website

quality from a functional perspective. Its validation establishes an important precedent: in contexts of socioeconomic vulnerability, the quality of a web platform transcends mere software engineering to become a direct political tool for equity. Breaking down digital information barriers and alleviating cognitive overload in mobile environments are unavoidable steps to ensure that public policy fully delivers on its promise to inject justice and equity into educational access.

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