Using school websites for home–school communication and parental involvement?

Limin Gu

Department of Education, Umeå University, Umeå, Sweden

ABSTRACT

This paper reports a small-scale study on the websites of 12 K-9 schools from four municipalities in Sweden. The purpose of the study is to explore, describe, and compare what and how information relevant for parental use is presented by local schools on their websites, which reflect the schools’ perceptions, intentions and strategies of communicating and cooperating with families. Epstein’s six key components regarding parental involvement are used as a theoretical framework in order to examine and analyse the content of school website settings. To evaluate the website design features, the website evaluation metrics suggested by Parajuli are adapted and applied. The results indicate that information on school websites for parental use is generally limited. It seems that schools’ expectations for parental involvement in education are based mainly on the social aspects of student development, rather than on pedagogical issues. In general, the websites of independent schools are more attractive than most public schools' websites in terms of information richness and freshness, variations and friendliness. There is a need to develop websites that are more accessible for parents with immigrant backgrounds and non-Swedish speakers.

CONTACT Limin Gu limin.gu@umu.se Department of Education, Umeå University, Umeå, Sweden

ARTICLE HISTORY

Received 22 December 2016
Accepted 31 May 2017

KEYWORDS

School websites; information for parental use; interactivity; accessibility; usability

Introduction

During recent decades, the traditional home–school relationship, which is characterized by separate responsibilities for home and school, and authority of the teacher, has been challenged by the transition to more of a micro-democracy, where ‘partnership’, ‘user influence’, and ‘freedom of choice’ serve as the main principles for constructing and managing the home–school relationships, and for the changing role of teachers and parents (Epstein & Sheldon, 2006; Erikson, 2011, 2012; Tallberg Broman, 2013). However, research in this area has mainly addressed the parents’ right and opportunities to choose their preferred schools for their children, and the consequences brought about by this (Poikolainen & Silmäri-Salo, 2015). Studies of how schools and teachers experience and understand the new conditions for the relationship with the family, and what strategies schools use to improve practice are scarce, especially in Sweden (Nilsson & Sefyrin, 2005).

Use of computers and the Internet is consistently increasing in schools and in people’s private lives. According to the report ‘The Swedes and the Internet’ (Internet Foundation in Sweden, 2016), over 90% of the Swedish population has access to the Internet, and there is now an average of 2.07 computers and 1.13 tablets per household in Sweden. The extensive use of computers and the Internet provides new opportunities and challenges for home–school communication and relationships. The term parental e-involvement has been introduced to address parental involvement that is strengthened by technology (Şad, Konca, Özer, & Acar, 2016).

Today, schools use various Internet tools to inform and communicate with parents, including the school’s website (Jensen, 2007; The Swedish National Agency for Education, 2016; Thompson, Mazer, & Flood Grady, 2015). The school’s website can be seen as a window to the school, serving as a prime location for public advocacy and information, particularly for parents’ use (both existing parents and prospective/potential parents). Construction of school websites, to some extent, reflects the school’s beliefs, intentions, and strategies to communicate and collaborate with families. Through studying school websites, we are able to gain knowledge about the critical elements and features for parental use to increase their involvement in and influence on school management under the new condition of the digital society.

In the Swedish context, since the government provides a grant based on the number of students, the inner market value becomes the students, for whom schools compete (Lundahl, Erixon Arreman, Holm, & Lundström, 2013). Schools often attempt to use factors such as geographical location, school profile, student achievement or other benefits to attract customers through various channels (Fredriksson, 2010),
including their websites. Thus, it is of interest to explore how schools construct their websites to provide information that is useful to parents in order to maintain and increase student volume. Meanwhile, because parents are not a homogeneous group, their access to Web-based information and communication, and their ability to exploit resources online, are affected by their social, cultural, and economic conditions, which can be a challenge for the home-school relationship when it comes to issues of inclusion and exclusion (Ravn, 2005).

The purpose of this study is to explore, describe, and compare what and how relevant information is presented by local schools on their websites. Since content and design are two relevant and important aspects when the research object is websites, the main research questions are thus: (1) What information intended for parental use is presented on school websites? (2) How are school websites designed to facilitate and enhance parental use in terms of interactivity, accessibility, and usability?

Research review

The research review focuses on the importance of communication and a good relationship between home and school for parental involvement; the advantages and disadvantages of using school websites to inform and communicate with parents; and the crucial elements in designing a good school website, as suggested by some researchers.

Information and communication – preconditions for parental involvement and partnership

Research has shown that schools’ frequent communication and interaction with parents are the strongest premise for school practices of parental involvement to support children’s learning at home and at school (Grant, 2011). Research has also indicated that home-school communication is a primary way to enhance trust in the home-school relationship, and that trust is a vital component of effective collaboration between home and school. However, building trust in each other is a long-term interactive process that involves sharing of information, feelings, expectations, and ideas (Adams & Christenson, 2000).

In a discussion about the gap between rhetoric and reality in parental involvement in education, Hornby and Lafaele (2011) identified several influential factors that act as barriers for parental involvement. If parents feel that their involvement is not expected and valued by teachers or schools, they are less likely to be involved. This is also in line with Epstein’s (2009) argument that teachers’ and school leaders’ positive attitudes toward, and active encouragement of, parental involvement create a higher level and better quality of parental involvement in practices. Parents’ negative perceptions of teachers’ and schools’ invitations to them to be involved in education can be linked to many factors, of which lack of information and communication channels between schools and home is the most critical (Adams & Christenson, 2000).

Epstein and Sheldon (2006) advanced the research focus from parental involvement to the ideas and practices of the school, family, and community partnership, which enable educators, parents, and community partners to work together to support student success and improve the quality of schools’ work. Use of the term partnership recognizes common goals and shared responsibilities for students’ learning and development in the multiple major contexts of students’ lives inside and outside of schools. Partnership provides opportunities for students’ all-round development, not only academically but also socially, emotionally, and in other aspects of success. Partnership is also an essential component of school and classroom organization that supports open and honest communication and embraces parents and communities as partners who are involved directly in the school improvement-planning and decision-making process (Flessa, 2011). More importantly, sustaining a partnership provides more equal opportunities for all families to become involved in a way that supports all students’ progress and success (Aron, Castaneda, & Koraleck, 2006).

School website as platform for home-school communication and parental involvement

Previous research has reported some advantages of using school websites; for example, websites enable the conveyance of information to multiple families and the efficiently sharing and archiving of information about students’ learning and progress, school policies and assignments, tips for family involvement, and other common topics (Goodall, 2016; Olmstead, 2013). The challenges can include difficulties for schools to maintain and update the website, which demands both economic recourses and teachers’ and administrators’ time. Lack of visual and nonverbal cues may also reduce substantive interactions between home and school, and the ‘signal’ sent out by schools cannot always be sufficiently decoded by parents (Harris & Goodall, 2008). Thus, the importance of parent-teacher two-way communication and interaction using technologies is highlighted (Ho, Hung, & Chen, 2013).

Hartshore, Friedman, Algozzine, and Kaur (2008) stated that school websites generally have two functions. One is to serve as an information system for site visitors, including parents. Another is to act as an
intermediary between the numerous stakeholders in the educational process. According to Hartshore, Friedman, Algozine, and Kaur (2008), introducing the school, publishing student work, providing diverse resources for students, parents, and teachers, and providing a data source should be the basic informational elements of a school website. Miller, Adsit, and Miller (2005) recommended 16 specific elements of the school website: school mission, curriculum standards, news, rules and policies, announcements and events, afterschool activities and schedules, activity and program pages, teacher biographies and contact information, calendar, cafeteria menus, grade-level resources and homework assignments, schedules, parenting information, parent–teacher organization information, information about Internet use and safety, and student work. They also pointed out the critical importance of keeping all information on the school website current and available.

In addition to the recommended content elements on school websites, it is crucial to consider technical elements and design of the webpage, since functionality is critical for continued website usage (Pearson & Pearson, 2007). Hartshore et al. (2008) provided suggestions for a website’s technical and navigational elements, including features such as contrast, repetition, alignment, and proximity. Lazarus and Lipper (2005) highlighted the importance of culturally responsive guidelines that aim to establish a consistent, credible, and equitable system to meet the needs of different groups of people, especially those who are poorly served by online content. According to Lazarus and Lipper (2005), the website should take into account cultural and ethnic diversity and the possibility of use by those with a variety of languages in order to guarantee equitable access to educational resources.

**Theoretical frameworks**

In order to study school websites for parental use to improve parental involvement in education, there are two critical aspects to be considered. One is the definition and dimensions of parental involvement, i.e. content of information presented on webpages; and another is the functional properties, dealing with the design of websites. The theoretical frameworks relevant to this study are thus twofold. First, Epstein’s (2009) key components regarding parental involvement serve as a principal framework in order to examine and analyse the content of school website settings that reflect the school’s attitudes, intentions, and strategies for working with parental involvement and influence. The six key components are parenting, communicating, volunteering, learning at home, decision making, and collaborating with community.

*Parenting* is about helping all families to establish home environments that support children’s learning and development. A challenge associated with parenting, according to Epstein (2009), is providing information to all families, rather than the few who can attend meetings in school or who can conveniently and actively contact teachers. Thus, a school website opens up possibilities for offering the same information to all parents, even those who are not able to attend parental meetings or the like. *Communicating* refers to information about school programmes and students’ progress, and the opportunities for two-way communication between home and school. The school website can be used to convey a broad range of school information online that is accessible to parents and that can serve as an easy and convenient method for enhancing parental involvement (Aron et al., 2006). *Volunteering* deals with information and activities of recruiting and organizing parental help and support in school. The school website is able to broadcast volunteer opportunities by offering up-to-date information and more flexible scheduling (Aron et al., 2006). *Learning at home* relates to giving information and ideas to families about how to help students at home with homework and other curriculum-related activities, decisions, and planning. The school website provides opportunities to post current homework assignments and links to homework resources that facilitate parental support of students’ learning at home (Aron et al., 2006). *Decision making* aims at involving all parents in school decisions, and developing parent leaders and representatives. The school website can provide useful information and tools that parents need to become active members of school governance (Epstein, 2009). *Collaborating with community* provides information and opportunities to integrate resources and services in the community to strengthen school programmes, family practices, and student learning and development. The website offers a means for communicating and resource-sharing between numerous stakeholders in the educational process, including community organizations and business partners (Aron et al., 2006).

Second, a website should optimally be informative, usable, accurate, and effective for public use. There are critical aspects regarding the functional features of the website that need to be evaluated. In this study, the website evaluation metrics suggested by Parajuli (2007) are applied as units of analysis. The critical measurement determinants are transparency, interactivity, accessibility, and usability. Transparency refers to the relevance, richness, and openness of information. It measures the characteristics of the website in terms of its accountability, legitimacy, and trust. *Interactivity* relates to two-way communication, including channels for online direct communication in the form of feedback, discussion, chat, and an
interactive bulletin in order to target a larger audience and to promote their participation in policy making. A public website should also include contact information of the organization and the personnel associated with it. Accessibility is about the attribute of being easy to deal with. The website should be ‘accessible to all regardless of expertise, personality, literacy, ethnicity, and disability, and so forth’ (p. 89) in order to meet the requirements of different users. Multilingual options, FAQs, and online technical support can increase accessibility. A balanced combination of text and images of different kinds, such as photos, animation, and audio/video, could be advantageous for user-friendliness in terms of variation and aesthetics. Usability relates to user-friendliness in terms of structure of navigation, search engine or links, freshness, etc. A site map and direct links or buttons such as HOME, BACK, and TOP allow quick and efficient transitions between different sections of the website (Parajuli, 2007).

Methodology

This paper reports a small-scale study on the websites of 12 K-9 schools from four municipalities in Sweden. Since using school website to examine home-school relationships and parental involvement has not been investigated in previous studies in Sweden, this study considers small samples to be practical and manageable for identifying the critical variables relevant to this new research field.

Selection of schools

Twelve K-9 schools, three from each municipality, were selected. The selection of municipalities was based on consideration of distribution in terms of the geographic locations that represent different parts of the country, which may relate to diverse circumstances (Bryman, 2012). Another criterion for selection was the size of the municipalities; they had to have a medium-to-large-sized population – i.e. more than 50,000 inhabitants. In 2016, 46 of a total 290 municipalities in Sweden met this criterion (Statistics Sweden SCB, 2017). This was partly based on the fact that IT infrastructure in bigger cities usually offers more advantages than in small towns. In addition, by using schools in bigger cities, the risk of identifying the individual school involved in this study was reduced (Bryman, 2012).

The selection of schools was based on school size and the variation of school form in terms of ownership. The criterion for school size was that it had more than 250 students. This is mainly because larger schools may have more resources for support, including IT support, for their homepage construction, which can contribute to a more formal and substantive website. In other words, selecting larger schools was considered to reduce the risk of too little information/content for analysis. Two public schools and one independent school from each municipality were selected.

When the four municipalities were selected, the online database Siris at the Swedish National Agency for Education (http://siris.skolverket.se/siris/) was used to select the individual schools. The first two public schools and the first independent school in alphabetical order on the list that matched the criterion for school size were selected. The four municipalities were coded as A, B, C, and D. Schools numbered 1 and 2 are public schools, and schools numbered 3 are independent schools. I realize that using this non-random sampling method could entail a risk that the schools could be identified; however, due to the anonymity of the municipalities and the lack of provided background on the schools, such as the number of students, this risk is very limited.

Data collection and analysis

A content analysis approach was applied to the data analysis, as suggested by Herring (2010). Content analysis enables the gaining of insight into the intentions and preferences of a text (Schreier, 2012), which, in this case, is the website owners’ intentions and preferences. This study was inspired by the step model of deductive category application of content analysis suggested by Mayring (2000). Deductive category application follows the principle of working with prior formulated and theoretically derived aspects of analysis and connecting them with the content being studied.

The changing content of a webpage could be problematic for data collection in terms of the stability of the data. Thus, I adopted a free software program Local Website Archive Lite (http://www.snapfiles.com/get/lwa.html) to collect the data. This program enables the downloading and saving of websites to a local hard drive for later reading, coding, and analysis. In practice, four steps of data collection and analysis were applied. In step 1, during autumn 2015, I browsed all the homepages of each school as a whole and considered the relevance of information and communication for parental use. In step 2, in the beginning of April 2016, I selected the relevant pages by adopting Epstein’s (2009) framework of six components related to parental involvement, and Parajuli’s (2007) key measurement determinants for website studies, and saved the pages on the computer by using Local Website Archive Lite. In total, this consisted of 190 pages (11–23 pages from each school). Step 3 was the analysis process, in which I created coding rules and identified the examples for
carrying out the coding agenda (Mayring, 2000). In step 4, my focus was on interpreting the data as a whole and gaining an understanding of the research objectives in light of the theoretical frameworks. Table 1 displays the categories and coding agenda applied in this study.

Table 1. Categories and coding agenda.

| Category               | Definitions/coding rules                                                                 |
|------------------------|------------------------------------------------------------------------------------------|
| Transparency/information | Information relevance, richness, and openness                                              |
| Interactivity          | Possibilities for two-way communication, including online communication                   |
| Accessibility          | Attribute of being easy to meet or deal with                                             |
| Usability              | User friendly – structure of navigation, search engine effectiveness, design and aesthetics, freshness |
| Parenting, communicating, volunteering, learning at home, decision making, and collaborating with community (Epstein, 2009) | Opportunities for feedback, discussion forum, chat room, interactive bulletin, online application forms of different sorts, contact information, etc. |

Table 2 demonstrates the checklist of information on the school websites that related to the six key components by Epstein (2009).

Table 2. Information on school websites related to the six key components by Epstein (2009).

| Key components regarding parental involvement | Examples of information related to the components                                      |
|-----------------------------------------------|----------------------------------------------------------------------------------------|
| Parenting                                    | Parental education, such as lectures/seminars/materials for parents                    |
| Communicating                                | School vision/profile, curriculum, regulations and action plans, teaching and learning in school, schedules, school/class activities, students’ work and products, support for students in school, school lunch menu |
| Volunteering                                 | School or class activities that parents are supposed to be involved in, parents as volunteers |
| Learning at home                             | Homework, learning and teaching resources related to homework                           |
| Decision making                              | Parental board                                                                          |
| Collaborating with community                 | Resources and services provided by community organizations outside of schools, links to social media |

The strategy included checking the presence of relevant information in a more quantitative way and studying the detailed content of the information in a more qualitative way. I chose not to use computer-assisted qualitative data analysis software programs in the coding process because there were limited programs that were free, in Swedish, and able to analyse a mixture of text and images/photos. In addition, based on my experience and judgement, 190 pages was a manageable amount.

Ethical considerations

This study followed the ethical considerations and recommendations described in Good Research Practice (Swedish Research Council, 2011), especially regarding confidentiality – i.e. no schools involved in this study could be identified. This was achieved through a guarantee of anonymity of the municipalities, and the fact that no quotations from the webpages are presented in the results. The collected data analysed was stored on the password-protected personal computers of the author, which means that only the author has access to the saved materials.

Major findings

Information on school websites for parental use

The information that is presented on school websites reflects the school’s perceptions, understanding, and ideas of what is important to convey to the audience visiting the website, which includes parents. Table 3 displays an overview of the information presented on the schools’ websites intended for parental use.

Table 3. Information on school websites relevant for parental use related to the six key components by Epstein (2009).

| School | Parenting | Communicating | Volunteering | Learning at home | Decision making | Collaborating with community |
|--------|-----------|---------------|--------------|------------------|----------------|-------------------------------|
| A1     | √         | √             |              |                  |                |                               |
| A2     | √         | √             |              |                  |                |                               |
| A3     | √         |              |              |                  |                |                               |
| B1     | √         |              |              |                  |                |                               |
| B2     | √         |              |              |                  |                |                               |
| B3     | √         |              |              |                  |                |                               |
| C1     | √         |              |              |                  |                |                               |
| C2     | √         |              |              |                  |                |                               |
| C3     | √         |              |              |                  |                |                               |
| D1     | √         |              |              |                  |                |                               |
| D2     | √         |              |              |                  |                |                               |
| D3     | √         |              |              |                  |                |                               |
information related to parenting. School A2 emphasized the importance of children’s reading interest and reading habits for their learning and development. Tips to parents on how to encourage and support their children’s reading at home were presented by using many external links to the library, research reports, and other reading-related activities in the municipality. On the website of school B3 there was a shorter text about a lecture on the influence of the Internet on students’ learning and everyday life, which was available for parents to share.

**Communicating**

All schools provided some degree of information about school management that might be of interest to parents. However, in studying the descriptions in detail, it seems that independent schools offered more comprehensive information regarding teaching and learning. For example, schools A3 and D3 had far more descriptions of their educational philosophy and pedagogical ideas. School C3 even had several reviews of lessons as examples to explain the pedagogical ideas behind its teaching methods. Public schools generally had shorter and briefer presentations about their visions or profiles, and the focus was mainly on how they were working with basic values, such as inviolability of human life, individual freedom and integrity, equal value of all people, equality between the sexes, and solidarity between people.

All public schools and one independent school provided local school policies such as action plans against discrimination and offensive treatment, and IT-related policy. In addition, the school websites generally emphasized information on activities conducted at the school level, rather than at the class level. Only four schools had class-based websites on which lesson schedules and calendars were published. Some schools used photos of students performing different activities at school, but very few schools displayed students’ work/products or similar. On the webpages of school A3 and D2, videos made by students themselves were available.

Most schools had up-to-date school lunch menus. The majority of schools also provided information about student healthcare, such as members of the healthcare team and their contact information. Some schools provided a more detailed explanation of how the team works and the processes they carry out. Only two public schools dealt with information about students’ choices (A1 and D2), where students have the opportunity to choose one or more subjects to deepen and broaden their knowledge within the framework of the curriculum. This information would be useful for parents to help their children make choices.

**Volunteering**

Volunteering was an area that most of the schools ignored on their websites. Only school D3 announced a cleaning and planting day in Spring 2015 in which parents were supposed to be involved. Several schools mentioned the school closing ceremony before summer vacation, but did not provide any information about whether and in what way parents were expected to participate or contribute.

**Learning at home**

Five schools provided information related to homework. This was not directly about homework assignments, but pertained to materials or internal and external links to subject-oriented online support or services that the students and parents could access. All four public schools had after-school homework assistance activities at which students could have one or more teachers help them with homework.

**Decision-making**

Regarding decision-making, school A3 was the only school to mention the importance of home-school cooperation and parental involvement on its homepage. Six schools had links to their parental board, although they used different names (e.g. coordinating board, influence board, parental association, and user council). However, when I clicked on the buttons, the links of two schools did not lead to further information. Only one school published the date for the next meeting and details of earlier meetings.

**Collaborating with community**

All public schools, in one way or another, referred to the shared resources and services gathered on the municipalities’ homepages. These could be, for instance, application forms for enrolment and sickness or absence reporting, or links to social services available at the municipal level. A few schools had activities sponsored by companies or other organizations. For example, school A1 had an education programme on friendship for students and staff in the school, which was sponsored by a municipally owned public housing company. School D3, for instance, had an open lecture by a famous novelist.

**Website features in terms of interactivity, accessibility, and usability**

When dealing with the opportunities for two-way communication, as revealed in Table 4, only four schools provided opportunities for website users to give direct online feedback or comments, in which school C2 linked to the municipality’s joint webpage for comments. Three independent schools had the opportunity for parents to participate in internal dialogue and discussion through a login system. All schools provided contact information (i.e. telephone and email) on their websites, enabling users to contact members of the school – for instance, head
Table 4. Interactivity.

| School | Online feedback/ comments | Online application forms | Online reporting sick or leave | Individual staff contact information | Closed discussion forum/blog |
|--------|----------------------------|--------------------------|-------------------------------|-------------------------------------|-----------------------------|
| A1     | √                          | √                        | √                             | √                                   | √                           |
| A2     | √                          | √                        | √                             | √                                   | √                           |
| A3     | √                          | √                        | √                             | √                                   | √                           |
| B1     | √                          | √                        | √                             | √                                   | √                           |
| B2     | √                          | √                        | √                             | √                                   | √                           |
| B3     | √                          | √                        | √                             | √                                   | √                           |
| C1     | √                          | √                        | √                             | √                                   | √                           |
| C2     | √                          | √                        | √                             | √                                   | √                           |
| C3     | √                          | √                        | √                             | √                                   | √                           |
| D1     | √                          | √                        | √                             | √                                   | √                           |
| D2     | √                          | √                        | √                             | √                                   | √                           |
| D3     | √                          | √                        | √                             | √                                   | √                           |

*Only available for sport profile.

Table 5. Accessibility and usability.

| School | Other languages than Swedish | Audio version of the main homepage | External links to shared resources | FAQs/real-time IT support | News/bulletin board | Text | Photos | Videos | Links to social media | Search engine | Link to internal LMS** |
|--------|-----------------------------|----------------------------------|-----------------------------------|---------------------------|---------------------|------|--------|--------|-----------------------|---------------|----------------------|
| A1     | √                           | √                                | √                                 | √                         | √                   | √    | √      | √      | √                     | √             | √                    |
| A2     | √                           | √                                | √                                 | √                         | √                   | √    | √      | √      | √                     | √             | √                    |
| A3     | √                           | √                                | √                                 | √                         | √                   | √    | √      | √      | √                     | √             | √                    |
| B1     | √                           | √                                | √                                 | √                         | √                   | √    | √      | √      | √                     | √             | √                    |
| B2     | √                           | √                                | √                                 | √                         | √                   | √    | √      | √      | √                     | √             | √                    |
| B3     | √                           | √                                | √                                 | √                         | √                   | √    | √      | √      | √                     | √             | √                    |
| C1     | √                           | √                                | √                                 | √                         | √                   | √    | √      | √      | √                     | √             | √                    |
| C2     | √                           | √                                | √                                 | √                         | √                   | √    | √      | √      | √                     | √             | √                    |
| C3     | √                           | √                                | √                                 | √                         | √                   | √    | √      | √      | √                     | √             | √                    |
| D1     | √                           | √                                | √                                 | √                         | √                   | √    | √      | √      | √                     | √             | √                    |
| D2     | √                           | √                                | √                                 | √                         | √                   | √    | √      | √      | √                     | √             | √                    |
| D3     | √                           | √                                | √                                 | √                         | √                   | √    | √      | √      | √                     | √             | √                    |

*Only on webpages for sport profile

**LMS: web-based learning management system. Different schools use different kinds of LMS.

teachers, members of the healthcare team. However, one-third of schools did not publish their individual staff’s work-related contact information.

Table 5 presents an overview of the features regarding accessibility and usability of the school websites.

Each school’s website had quite a consistent navigational scheme that was easy to learn and understand. Many schools even had the same navigation structure on all pages, with consistently located tabs, headings, or lists. Only four public schools provided English or other language versions of the websites. Some public schools provided the opportunity to listen to the main school homepage, or provided a simplified version of the main homepage. Seven out of the 12 schools had links to social media such as Facebook, Twitter, or Instagram. Seven schools had links to the school’s internal information and learning management system (LMS) through a login system. Only one independent school (D3) used frequently asked questions (FAQs) to support users in dealing with the website. No schools provided the possibility of real-time online IT support.

All four independent schools updated their webpages frequently using a news/bulletin board to inform interested people about what was happening in their schools. This was evidenced by the freshness of the news on their webpages. It was, however, difficult to identify the exact date of updates on most of the school websites. Often, the news/bulletin board was missing, or the news was several months old. The latest update displayed for one public school, for example, was 5 May 2014, almost two years prior. The graphic features of the website designs also differed. Generally, the independent schools were more likely to use a combination of text, photos, and videos than the public schools did.

Discussion

The purpose of the study is to explore, describe and compare what (content) and how (design) information for parental use is presented by local schools on their websites. Analysis of the content of information presented on school websites is based on the framework of Epstein’s (2009) six key components regarding parental involvement. The quality of website design that facilities and enhances parental involvement is discussed in the light of the framework by Parajuli (2007) regarding the functional features of websites.

With respect to parenting, the results show that the school websites did not sufficiently provide information and activities, such as programmes, support
services, and resources to parents and caregivers to increase their capacity and confidence in establishing a home environment that supports their children’s learning and development. It seems that the schools’ intention for parenting education, which was emphasized in the traditional home–school relationship in which teachers’ professional advice is highly valued, has been reduced as one of the outcomes of the new principle of ‘partnership’ in the home–school relationship. As a partner, parents are expected to take more individual responsibility and to have more autonomy in dealing with questions of raising their children (Erikson, 2011, 2012). Thus, activities and programmes for parenting education arranged by the school were not regarded as necessary.

Regarding **communicating**, most schools emphasized informing parents about how the school was managed, rather than providing opportunities to invite parents into the work of school management. The evidence for this was that only one school mentioned the importance of home–school cooperation and parental involvement in their vision description, and only a few schools provided information about the parental board. This could give rise to parents’ negative perceptions and feelings about the fact that the school does not expect and trust the value of parental involvement, and could prevent their real involvement and influence (Grant, 2011; Hornby & Lafaele, 2011). The results also indicate that schools’ expectations for parental involvement in education are more likely to be limited to the social aspects of student development (such as detailed information about the lunch menu, students’ healthcare, and local policies and regulations for working toward equal treatment and against discrimination) rather than the pedagogical issues (absence of lesson schedule, class activities, students’ choices, and students’ work and progression). In this respect, it seems that the traditional separated responsibility model continues to dominate practices, wherein teachers are regarded as experts in handling pedagogical matters while parents are expected to focus on students’ health, well-being, and emotional and social development (Erikson, 2011, 2012).

The results indicate that there was a lack of information and activities of parental **volunteering** on the school websites, which is one of the important aspects in school-based parental involvement according to Epstein (2009). In fact, parental volunteering activities should be based on parents’ own interests and initiatives, but their interests and initiatives are more or less influenced by the level of trust in the relationship with teachers. Parents are more likely to participate in school activities when they feel empowered by their interactions with the school staff (Hornby & Lafaele, 2011). The absence of information and activities presented on most of the school websites might, to some degree, reflect the lower level of trust in the parent–teacher relationship. However, some parental volunteering activities could be carried out on a class level, which would not appear on the school’s websites due to the absence of class homepages in most of the schools.

With regard to **learning at home**, information on homework and other homework-related resources that could facilitate parental support of children’s learning at home were absent in many schools (Aron et al., 2006). When dealing with **decision-making**, the findings indicate that not all schools offer parents formal opportunities (such as links to parental board information) or informal opportunities (such as open or closed forums for feedback, recommendations and discussion, or contact information of individual teachers) to express their intentions and desires to be involved in education or to make suggestions about the improvement of school development (Epstein, 2009). With respect to **collaborating with communities**, one impression was that public schools had the advantages of integrating municipal or other external joint resources and services, as highlighted by Epstein (2009).

Regarding the **technical features and design aspects** of the websites, the results show that most of the schools had a clear and consistent navigation scheme that was easy to access and that made it easy to switch from one page to another. This could increase the sites’ accessibility and usability for parental use. The results also show that all the independent schools and one public school with IT in the school profile had a better-balanced combination of text and images/videos that contributed to the variations and friendliness of websites, which, in turn, could have a positive influence on the users’ interest and engagement. Variation can also increase flexibility, which fulfills the complex needs of parents, as Lewin and Luckin (2010) pointed out. In addition, the website’s freshness is a crucial element of usability (Parajuli, 2007), which enables parents to keep up-to-date with school activities and upcoming school events. The results reveal that independent schools updated their homepages more frequently than public schools did. Furthermore, the results indicate that there is a need to develop websites that will be more accessible to parents with immigrant backgrounds and whose first language is not Swedish.

**Conclusion and reflection**

Due to the limited number of samples, the results of this study cannot be generalized; however, some conclusions can be drawn with respect to the given context.

Information regarding parental use presented on the school websites was generally limited based on the key components suggested by Epstein (2009), and in relation to the school website content elements recommended by Hartshore et al. (2008) and Miller et al. (2005). The
major shortcomings on the school websites were information and resources for parenting, volunteering, learning at home, parents’ involvement in the decision-making process, curriculum, and programmes, and student’s work and progression, which could prevent the practices of parental involvement in education. There is a need to construct websites that provide more information and opportunities for parents to be involved in improving the quality of teaching and learning.

The potential use of technology for supporting parental involvement through websites could be utilized more optimally in order to reach the goal of involving all families. The advantages of technologies in providing readily accessible, flexible, and interactive resources for developing parental involvement through websites should be emphasized. Schools need to develop two-way communication opportunities and online interaction channels between home and school on their websites in order to increase transparency and understanding in a visual and non-verbal environment that is of importance for parental involvement and partnership, especially in the decision-making process (Ho et al., 2013; Olmstead, 2013).

In general, the websites of the independent schools are more attractive than those of most of the public schools in terms of information richness and freshness, variation, and friendliness (Parajuli, 2007). It seems that independent schools have a greater intention to use the school website to attract and retain students and parents, and to use their websites as an occasion and place for advertising. This is because the market impact and competition in the current school system perhaps affects independent schools more than public schools. However, the education market has tended to give rise to competition even between public schools, in which the number of students can play an important role, which encourages all schools to work intensely with marketing strategies to attract students and their parents (Fredriksson, 2010). Thus, constructing a school website that is more informative and attractive for both existing and potential parental use has become a challenge for all schools.

The study indicates a need to consider cultural diversity in the construction of school websites. In other words, a school website should be an inexpensive and efficient way to incorporate and highlight cultural diversity and to make non-native parents feel valued and invested in school development, as suggested by Lazarus and Lipper (2005). If a website is difficult for disadvantaged parents to use, these parents and families will have less access to the available educational and social resources, which could prevent them from supporting their children’s learning and development (Ravn, 2005).

Limitations and further research

This study has a number of limitations in terms of its design and analysis that might, to some extent, affect the results and conclusions negatively. First, the school website is not the only place from which parents can receive relevant information on the school and their children’s schooling. The school’s work of involving parents could be furthered in many other ways, such as parent meetings, development conversations, phone calls, text messages, and information letters of various kinds through emails and learning management systems, etc. Thus, we cannot make a simple conclusion about the correlation between the quality of a website and the quality of a school’s real work with parents. Second, municipalities may have policies regarding what information should or should not be presented on school websites. I found that some municipalities had a template for the structure of websites that public schools were supposed to use. Additionally, due to some polices about privacy and secrecy, photos and videos of students cannot be published without parents’ permission. These could also influence the content and design features of school websites.

Content analysis seems to be an appropriate instrument for studying websites. However, applying the content analysis approach and the deductive category application model to the study of websites is a complex matter. In this study, the process has been simplified with a focus on ‘checking’ whether some pre-decided elements are present or not based on the theoretical frameworks (i.e. Epstein, 2009; Parajuli, 2007). The contents should be studied on a more comprehensive and in-depth level. Since websites usually consist not only of text but also pictures, photos, and videos that should be interpreted, using computer-assisted qualitative analysis software may be useful.

This study on school websites leads to other important issues for further research. Case studies aiming to find examples of school websites that are of outstanding quality in terms of parental use, transparency, interactivity, accessibility, and usability will be important when it comes to making recommendations for other schools. Furthermore, these case studies should be combined with investigations of the website owners’ (school leaders, administrators, IT personnel, and persons who are responsible for this in municipalities) knowledge about, attitude toward, and strategies for parental involvement, and the users’ (parents and students) satisfaction through surveys and/or interviews. Based on these studies, we will then be able to make suggestions for better-designed school websites with a focus on improving and parental involvement.

Disclosure statement

No potential conflict of interest was reported by the author.

ORCID

Limin Gu  http://orcid.org/0000-0002-1286-9390
Tallberg Broman, I. (2013). Föräldrasamverkan i förändring. In I. A. Harju & I. Tallberg Broman (red.), Föräldrar, förskola och skola. Om mångfald, makt och möjligheter (pp. 25–39). Lund: Studentlitteratur.

Thompson, B. C., Mazer, J. P., & Flood Grady, E. (2015). The changing nature of parent–teacher communication: Mode selection in the smartphone era. *Communication Education, 64*, 187–207. doi:10.1080/03634523.2015.1014382