



The missing link: The parental voice in Bring Your Own Device (BYOD) programs

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Abstract

This paper reports on the parental perspective on one school's implementation of a Bring Your Own Device (BYOD) Program to ensure students had access to a personalized computer. Often studies of one computer to one student (1:1) Programs focus on students and or teachers while parent compliance in the Program is assumed. Consequently, there is limited literature that explores parental perceptions and concerns, and subsequent decision-making process, in the implementation of a BYOD Program. The aim of this study was to document the parental voice in the implementation of one such BYOD program. This case study focused on one large co-educational school with 130 parents completing a questionnaire that provided both quantitative and qualitative responses. This enabled an exploration of the effect of the BYOD Program as reported by parents themselves, as well as the examination of a range of related issues, such as textbook use, the financial burden and choice of device. The findings provided insight, through the lens of the parents, into how the BYOD Program was deployed. Three trends emerged from the study: parents clearly expected some kind of trade-off in terms of expenditure, they clearly wanted reassurances that their investment was worthwhile and that the devices would be used for improving learning. Further research needs to be undertaken about parental perspectives, expectations, and concerns of BYOD Programs.

Keywords BYOD · Parental concerns · Parental expectations · Textbooks · 1:1 programs · Mobile computing

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1 Introduction

For more than four decades schools have grappled with the implementation and use of computers in the classroom. The situation in the first decade of this century was that, while some secondary schools had implemented one to one Programs (1:1) - the ratio of one computer to one student – the majority had not. In Australia, substantial funding was committed to deliver the *Digital Education Revolution* (DER) to provide all senior secondary students with access to their own personal computer (Keane & Keane, 2020; Rudd et al., 2007). However, once the funding ceased and the DER was discontinued, school leaders had to make decisions on the future of a 1:1 Program in their schools. Some schools implemented a Bring Your Own Device (BYOD) Program (Janssen & Phillipson, 2015) which, while shifting the cost to parents, was designed to keep those costs manageable.

Following a successful pilot program, a large co-educational school in Victoria offered an optional BYOD Program to their school community. This paper examines parental expectations and concerns relating to this one school's implementation of a BYOD Program.

2 Literature review

Over the past 40 years schools have chosen to implement computing in the curriculum through a variety of methods, highly dependent on the type of technology available at any given time. Initially, schools deployed computers in special purpose rooms which quickly became computer laboratories. Over time, as technology became mobile and affordable, some schools opted for highly regulated one computer to one student (1:1) Programs. These programs typically, with top-down structures in place, incorporated a specified device and model, procurement, software, warranty, insurance, and a help desk on site. All students involved in highly regulated 1:1 Programs were expected to work within the parameters the school had outlined as part of their program. The first 1:1 Program was in Victoria, Australia, in a high fee-paying private Independent school in the early 1990s (Loader, 2015). The significant cost to implement a 1:1 Program meant that the adoption of these programs was far from universal.

Given the changing landscape of technology usage, affordable technology and budgetary constraints imposed on schools, the emergence of other types of 1:1 Programs evolved. In Australia, the interest and rise of BYODs (Bring Your Own Device) coincided with the cessation of the Government funded *Digital Education Revolution* (Johnson et al., 2015). BYOD is defined as consumer technology that is portable, has the ability to connect to networks and is owned by the student. In a BYOD Program students bring a mobile device of their choice, while typical devices for these programs include iPads, tablet devices, laptops and notebooks (Hopkins et al., 2017). In essence, BYOD Programs foster a 1:1 student to computer ratio with limited regulation and cost to the school (Johnson et al., 2015). There are essentially two types of BYOD Programs, one that is BYOD

Specified Device, whereby the school stipulates the types and models of the device to purchase and it is left to the parents to either purchase it through their own means or through the school. The advantage of this type of BYOD Program is that all students have a similar device or limited range of devices which, in turn, limits inequalities amongst students, and provides consistency and stability for teachers. The second type of BYOD Program is where the school provides the minimum specifications of a device so that a student can bring any type of device to school and the student is not disadvantaged with a slow and nonfunctioning computer. The school only provides networking infrastructure and limited technical assistance (Janssen & Phillipson, 2015).

Several factors have influenced the uptake of 1:1 Programs in schools. The benefits for students have included the possibilities of improving learning outcomes and preparing them for twenty-first century skills (Keane et al., 2016) and increased student engagement, and increased interaction between students (Elliott-Dorans, 2018). For teachers the benefits have included the shift of focus of teaching to learning, so that classrooms are empowering learners. For schools, the most significant factor is the cost shifting so that parents are responsible for purchasing and maintaining devices (Parsons & Adhikar, 2016).

The key stakeholders in any 1:1 Program in schools are teachers, students, and parents (Adams, 2021; Adhikari et al., 2017; Liao et al., 2017). While in highly regulated programs, parents are not generally provided a voice, in a BYOD Program, parents along with the student, make an informed decision about the device they will be using. Despite the important role parents' play in their children's education (Goodall, 2016; Hoover-Dempsey & Sandler, 1997), there is limited literature about parental views and perspectives of 1:1 BYOD Programs (Hopkins et al., 2017; Keane & Keane, 2018; Ortiz et al., 2011). The significance of parental engagement emerges from the sociocultural theory of learning whereby parents model learning which influences children's attitudes towards learning and schooling (Goodall, 2016). While this modelling extends to include parent/school engagement, parents find this challenging when it comes to their children's use of technology (Bond, 2019). Ortiz et al. (2011), for example, suggested that a child's views about computers are strongly influenced by their parents and parents can be somewhat uncertain about the benefits of computers on learning. Moreover, parent concerns are sometimes a product of their own lack of experience using computers in schools (Keane & Keane, 2018). Stemming from this uncertainty, appropriate use of technology in class is a common concern shared by many parents (Adams, 2021). Time wasting is also a concern for parents who want reassurances that their children use computers for learning when in class (Keane & Keane, 2018; Tallvid et al., 2015). Some parents believe that, when not directed by a teacher, students play games, use the internet, access social media or email during class time (Aagaard, 2015; Courtois et al., 2014; Fried, 2008; Gong & Wallace, 2012; Hatakka et al., 2013; Kontkanen et al., 2017; Pamuk et al., 2013) and are therefore worried that this inattention will lead to poorer academic performance (Burak, 2012; Carrier et al., 2015; Sana et al., 2013). According to Lei and Zhao (2008, p. 116), parents were "less positive" about 1:1 Programs, if they thought their children were distracted by non-learning activities on their devices

or that other skills such as handwriting would erode (Lei & Zhao, 2008). Additionally, a family's financial situation can also have a bearing on the provision of equipment provided (Adams, 2021).

This study seeks to further understand the relationship between parents and BYOD Programs in secondary schools through obtaining perspectives about these programs. The analysis was guided by the following overarching research questions that emerged out of the issues presented in the Literature Review:

- RQ1: What are parents' attitudes and perspectives towards BYOD Programs?
- RQ2: What considerations took place when purchasing a device?
- RQ3: How is the device being managed in the classroom?

3 Methodology

3.1 Research context

This study was undertaken in one large co-educational metropolitan secondary school located in Melbourne, Australia with approximately 2400 students across Years 7–12 with gender parity. The school had a socio-economic profile which placed it at the 61st percentile of the Index of Community Socio-Educational Advantage (ICSEA), the national measure to determine socio-economic advantage. The comparative wealth of the school population is concentrated in the middle two quartiles. In other words, there are fewer families who are either poor or wealthy. The school piloted an optional BYOD Program aimed at Years 7 and 10 in the year prior to offering the program across the school. Following the pilot, it was decided that it would run a non-compulsory BYOD Program the year after across Years 7–12. Even though the BYOD Program was non-compulsory, the school strongly encouraged all parents to participate, however there were parents who did not want to and therefore did not purchase a device for their children.

The findings are presented in one case study which provided insights into the program and discussed the challenges in implementing a non-compulsory, but strongly encouraged BYOD Program at one school.

3.2 Participants

All parents from the school were invited to take part in the study. Out of 1346 parents, a total of 151 parents accepted the invitation to take part in this study. However, the final data pool consisted of 130 parents who voluntarily completed the online questionnaire. Ethics permission was sought prior to the study from Swinburne University and the Catholic Education Melbourne and subsequently permission was also sought through the Principal. Written consent on voluntary and anonymous participation was then obtained from the parent participants.

3.3 Research instruments

A mixed methodology was employed comprising of a questionnaire to provide quantitative and qualitative responses. This enabled an exploration of parental views on BYOD Programs and the decisions explaining their participation, the influence of device choice, and their perspectives on how they believed the devices are being used in the classroom. The findings from the research is presented in a case study and according to Dul and Hak (2008, p. 4) “a case study is a study in which a) one case (single study)...in their real life context are selected, and b) scores obtained from these cases are analysed in a qualitative manner.”

3.4 Questionnaire

After the BYOD Program had been running for almost eight months, a questionnaire was sent to all parents regardless of whether or not they participated in the BYOD Program. The questionnaire sought both quantitative and qualitative responses. There were 17 questions delivered electronically to parents. Parents completing the questionnaire remained anonymous and could not be identified. The questionnaire was mainly qualitative in nature and involved a series of open-ended response questions directly relating to the research questions listed earlier. Free text entries from the parent questionnaires were read repeatedly to enable the coding and categorization of responses, then counted to enable quantitative comparisons. Participants were given an option to provide further comments. Entries to survey tick data were compiled to provide quantitative data. This qualitative data analysis method was informed by the work of Boyatzis (1998) and Bogdan and Biklen (1998). The questions asked of the participants centred around the following:

- Factors affecting BYOD Program participation
- The decision-making process of purchasing the device
- The type of device purchased
- The age of the device
- Perception of classroom use of the devices
- Benefits of a BYOD Program

4 Discussion

Of the 130 parents who answered this questionnaire, 82.31% indicated they took part in the BYOD program. When invited to explain the reason for their participation, there were six overwhelming themes from the responses:

- They didn't want their child to miss out;
- The program was recommended by the school;
- They placed high value on this program;

- The development of digital literacy skills/ positive contribution to learning;
- Their children wanted to be part of it;
- The benefits of having seamless integration between home and school;

In considering the responses overall, a seventh theme emerged:

- They were tentative about the program however they wanted more research but were prepared to commit.

Table 1 shows the themes identified along with a sample of comments from parents.

Parents expressed their views in a variety of ways. Some were simply curious about the program while others expressed the view that computer use is important for the future. Some parents focused specifically on the potential for the improvement in their child's learning. Despite the generally positive responses given by those who chose to participate, there was some disquiet expressed by a number of respondents. A small number of parents felt that they had been forced into participating in the program, citing implied pressure from the school. As one parent put it, "I don't feel we 'chose' to take part, we were made to feel we had to." More significantly, a new theme emerged from the responses as can be seen in Table 2. These parents, while being prepared to commit to the program, were unsure about it:

In contrast, those who did not choose to be part of the BYOD Program cited cost as the major factor with the issue of cost linked to the continued use of textbooks. While one very small group of parents expressed the view that textbooks were easier to work with than devices – and did not support the introduction of devices for learning- others complained about the additional cost of a device on top of prescribed textbooks. This continued requirement for significant numbers of textbooks was a source of complaint for several parents. Additionally, some parents also highlighted the non-compulsory nature of the program, expressing doubt that the school had appropriately communicated their long-term plans for a BYOD Program. One parent gave a detailed account of their reasons for not participating in the program complaining that having come from an interstate school:

We needed to buy \$1,800 worth of textbooks and stationery for 2 students. The quantity of stationery on the booklist indicated that most of the work that the children did would be handwriting, not computer-based work. To purchase 2 devices on top of this for the children to take to school was unreasonable when the booklists pointed to the fact that the devices would not be used. When the children and I were given a tour of the school we were told that we wouldn't need to participate in the program as there were plenty of class sets of computers that could be used if required.

This parent highlighted an issue for the school that there were contradictions in the BYOD Program. Having an optional program meant that textbooks and stationery remained on the booklist. This meant – as several parents pointed out – that the cost of the device was not defrayed by reducing costs in areas such as textbooks.

Table 1 Reasons for taking part in the BYOD program

Themes	Sample comments	Sample comments	Sample comments
They didn't want their child to miss out	"I didn't want my child to miss out on any learning that the other children might be doing. I didn't want her to be the only one without a device. I thought having the technology might make work easier for her." "The school implemented this program and I was told that my child can bring his iPad to school to help him with his work."	"My kids didn't want to be the odd ones out without an iPad." "Felt it was forced upon us by the school."	"Various reasons, mainly so our son would 'fit in' and have access to more resources." "It became apparent that the school was heading in this direction long term and the children were being disadvantaged if they didn't have their own device." "It is a requirement of the school for each child to have a BYOD."
The program was recommended by the school	"The school implemented this program and I was told that my child can bring his iPad to school to help him with his work."	"Felt it was forced upon us by the school."	"It is a requirement of the school for each child to have a BYOD."
Parents placed high value on this program	"Easy access to research for students at school."	"I thought having a device would benefit my children."	"For my child to keep up with technology."
Digital literacy skills developed	"To ensure my children are preparing from the outset how to operate in an electronic/digital world."	"Was encouraged by the school as it is the thing of the future."	"It seems these days you need to keep up with the use of technology."
Positive contribution to learning	"To make learning easier for my child."	"To help improve the learning process for my child."	"I believed the use of technology within the school program would benefit my daughter's learning."
Their children wanted to be part of it	"My son wanted to be part of the BYOD Program, and I thought it would be a good opportunity for him to get IT experience."	"My children wanted to take part in the program."	"Curiosity and pressure from student."

Table 1 (continued)

Themes	Sample comments	Sample comments	Sample comments
The benefits of having seamless integration between home and school	<p>“Technology is such a part of today’s society and teaching methods. We also appreciated the integrated approach of the device you use at home should also be part of classroom activities.”</p>	<p>“It was the best way to provide PC access at school and home that was seamless for our son.”</p>	

Table 2 Unsure about the benefits of being involved in a BYOD program

Wanting information about how the devices were to be used for learning.	“I wanted to know how BYOD impacted how children were interacting and using devices for school.”	“I am interested to see if it makes a difference.”	“To contribute to the research gathered in reference to having BYOD in schools.”	“Chance to see how it worked and if it did for my child.”
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Moreover, retaining textbooks and stationery, ensured that there would be mixed messaging as to how the devices would be integrated into the curriculum.

There were similarities in the concerns expressed by those who did not join the program and those who joined but expressed some reservations about it. Both groups would have preferred to be better informed about the consequences of a BYOD Program, especially as the nature of the program meant that, necessarily, parents and students needed to be heavily involved, particularly in the initial stages. In fact, the school made parent and student involvement a virtue in their communications to parents, highlighting that a BYOD program allowed students to use the device with which they are most familiar. This element of student choice is clearly reflected in the survey results with 70% of parents indicating that their child was involved in the purchase decision.

For all the advertised freedoms, there were constraints on the choice of device. For many, considerations of price dictated the device purchased, followed by its size, weight and portability. Other factors that were influential included brand loyalty, especially amongst Apple users, and whether parents felt that a particular brand would be suitable for educational, and classroom needs (see Table 3 for examples of comments). Some parents indicated they did considerable research before settling on a particular device whereas others stated that the choice of device was entirely left up to their children. Many parents who expanded on their reasons, noted that they based their choice on prior experience with devices. In explaining their choice one parent touched on a range of factors, “How it would perform, how relevant it would be in the classroom, how light it was to carry and if it would fit on the desk at school, the amount of memory it had and the ability to update it, and the price.” These were factors that were considered when purchasing a device:

- Cost;
- Size, weight and portability;
- Brand loyalty;
- Already having a device;
- Research undertaken about a particular device;
- Student choice.

The choice of device was varied with 47% purchasing an iPad and 36% choosing a laptop. In terms of the age of the device, 33% of parents purchased a new device. 26% stated their device was less than one year old while 36% stated that their device was less than 2 years old. A potential pitfall of a BYOD Program was highlighted by 41% of the parents reporting that the devices provided were more than a year old. Having a range of devices of variable age in a classroom seemed likely to create challenges for teachers in implementing the BYOD Program. Overwhelmingly, 79% of devices used for the BYOD Program were purchased specifically for student use (some students already had a device from primary school).

The school did not stipulate which device to purchase, but rather provided a list of specifications to enable participation at different price points to minimise the cost to parents. In weighing up the benefits of a BYOD Program versus a program with

Table 3 Factors considered when purchasing a device

Themes	Sample comment	Sample comment	Sample comment
Cost	“My child chose the device at a price point we could afford.”	“Price vs specs””, Affordability with having to buy two devices currently, also the range of applications available as my year 10 son at the time was doing IT subjects and wanting to continue those to VCE level.”	“It was the affordable and came with all the requirements of the byod program.” “Price, size, weight, capability, suitability.”
Size/Weight/Portability	“Light weight and easy to take to and from school.”	“The size of the device.”	“Weight/ Features.”
Brand loyalty	“Our house only uses Apple devices.”	“We have many Apple products and are happy with the way they all work.”	“Flexibility of device, full Windows functionality.”
Already have a device	“The device was NOT specifically purchased for BYOD. She already had an iPad before starting Year 7.”	“At her previous school we had no choice. We had to have Apple mac pro or Mac books.”	“One we had at home, not specially purchased.”
Research undertaken	“Maximum life battery and app access.”	“Salesperson, experience with other devices & our own research.”	“We wanted her to be able to print any work she did from her device. With Apple iPads this couldn't be done directly. She would have to email herself and print at school.”

Table 3 (continued)

Themes	Sample comment	Sample comment	Sample comment
Student choice	<p>“My child picked what he thought was appropriate for his learning.”</p> <p>“His experience with both, and having an iPad, one wasn't happy with it, and wanted the Samsung, and the other took her iMac, as she won't use anything else. Personal preference is important as they are more comfortable with one.”</p>	<p>“Our daughter was allowed to choose in consultation with us.”</p>	<p>“My child did the research and felt it was the best device available.”</p>

a common device, the parents viewed price, flexibility and student preference as the key benefits of a BYOD Program. One parent articulated advantages in a BYOD Program in these terms:

Cost I suppose. Had we been required to purchase an iPad for example for each child (next year we will have three at the school) the cost would have been prohibitive, and it may not have suited our older son doing IT subjects.

Despite the cost advantages inherent in a BYOD Program, 61% of parents would have preferred a 1:1 Program that prescribed a common device. In addition, 78% of parents would have been prepared to purchase a nominated device from the school as they were acutely aware that having many different types of devices in a classroom caused many challenges for teachers, students and parents. In addition, several parents believed that having a common device would provide significant advantages for the teaching and learning program, with one arguing, “It’s a benefit to the teachers when helping students if everyone had the same device.” It seemed to many parents to be self-evident that one platform or standard operating system would make it more consistent for all and easier and more effective for the teachers. Moreover, as one parent explained:

Some parents are not familiar with technology so are unable to offer the necessary support to their son/daughter. If it is one device, I would expect all teachers are familiar enough with the device to be able to provide the necessary support to students.

Another major issue to emerge was equality. The BYOD Program, designed in part to ensure that a device was affordable, was also seen as divisive. The benefits of having a common device was summed up by another parent in this way:

It’s a bit like a uniform, no student looks different, has any advantage or disadvantage - it’s a level playing field. Particularly with technology, which is constantly changing/upgrading, our concern is being able to keep up with the latest (as will be our son’s wish). Whereas if the school prescribed the device, this would not be an issue.

One point of contention that emerged again and again was the issue of textbooks. Parents were firmly of the view that students should not have to carry textbooks as well as a device and they were critical of the lack of electronic textbooks. The expense and weight of textbooks was an issue which they had expected the BYOD Program to address. Parents wanted e-books, partly because of cost but also because of the weight of school bags. Some parents complained that e-books they had purchased did not work on the chosen device, an unintended, if unsurprising, consequence of a BYOD Program.

Despite concerns about the pilot program, especially including their frustrations about textbooks, the parents were generally supportive of a program which aimed to ensure that students had devices.

In fact, only one of the parents who responded to the survey believed that the program should end because:

I don't think it's necessary or improves the education being received. In fact, I think it can have several negative affects including creating points of difference between students because they cannot afford the 'best' brand and also reading from electronic sources has been proven to damage eyesight. I would be extremely disappointed if our school replaced texts with devices.

For the most part, rather than wanting the program to wind up, parents were firmly of the view that the devices needed to be better and more extensively used, and that teachers should, "Actually use the devices for most subjects."

Overall, 80.81% of parents reported that they were satisfied with how the device was used at the school. While a solid figure, it is worth noting that nearly one in five parents were not satisfied with the usage of the device, suggesting significant room for improvement. When asked how the devices were being used a third of the parents replied that they did not really know, while another 8% reported that the devices were hardly used at all. Communication by the school before the implementation of the program was somewhat vague about how the devices would be used. This lack of knowledge of device usage by parents is consistent with other research in the area (Keane & Keane, 2018) and highlights the importance of schools communicating the purpose and progress of an implementation.

It was apparent that, once the program was underway, there was not much effort made to explain how the devices were used in class. This lack of knowledge led some parents to question their choices:

We regret the decision to purchase a laptop. After a number of instances, we feel an iPad would have been a better option. More portable, cheaper, better able to be protected from damage. I wish we had known about how the devices would be used. Searching the internet and access to ebooks seems primary purpose.

One parent summed up perhaps the key issue with a BYOD Program in this way:

I don't believe having so much choice has helped the teachers or the students, rather I believe it has restricted what can happen in class because there isn't a uniform platform. I think in the junior campus there should be a common device and then in the senior campus as students' subjects vary, then they can have a choice of the device that best suits their needs. I think more support is needed for teachers too as some don't encourage the use of technology in learning.

When asked about ways to improve the BYOD Program, a number of parents responded with suggestions about having a compulsory program and/or prescribing a specific device. Others offered suggestions about easing the financial burden or felt that the school could provide improved Information Technology (IT) infrastructure. Examples of comments can be seen in Table 4.

A key suggestion for improvement was better communication from the school about how the devices were being used. A common plea was that "Teachers use devices more often. At the moment they are often carried to class and not used." This need for better communication with parents is consistent with earlier findings

Table 4 Improvements to BYOD program

Themes	Sample comment	Sample comment	Sample comment
Compulsory program	“A compulsory program with financial support to those who need it.”	“The school should have made the decision to go compulsory BYOD right from the start and then students like my son who started the year without one wouldn’t have been made to feel like they were holding everyone else back.”	“All students to have a choice of 1–4 devices, price range & insurance should be included.” “Compulsory and all the same device for students.”
Specific device	“One common device for all, teachers and students alike.”	“A common device able to be purchased from school or a listed supplier to make organising the device a lot easier for families.”	“Same device for everyone. On my daughters ‘booklist’ for year 8 this year, a digital atlas was on it. I purchased the atlas then found out it isn’t compatible with ipads. Waste of money & my daughter misses out on that resource.”
		“I would make it one type of device that all students have like an iPad. Then students could work together on tasks, the teacher could show students how to use certain program for particular tasks. (not all students are as technology savvy as others and do rely on teachers to model strategies etc. I would also prefer to have less choice in which device to purchase and have the school provide support more support to the students). I don’t believe having so much choice has helped the teachers or the students.”	

Table 4 (continued)

Themes	Sample comment	Sample comment	Sample comment
Financial burden	“Perhaps dealing with major companies to get student discount to buy their device.”	“Heavily subsidised product.”	“Device to be prescribed, device can be purchased via school who would most likely get better pricing by buying in bulk, textbook online resources to have longer use by date (currently if you purchase the soft copy of the textbook it only lasts 15 months, therefore it needs purchasing again for siblings) perhaps the school could have an online library (if licensing permits).”
Improved IT infrastructure	“Better network at school.”	“Ensure that the IT department staff are competent and that the school is equipped to handle the extra demands placed on its own network and systems.”	“That all schools have dedicated IT staff to help sort out students issues with their devices - I do not agree with other students having the responsibility of connecting/fixing these issues”
Teaching & learning	“Prescribed device. More information on how teachers are using the device in the classroom. More driven my the school rather than optional participation with each student participating to varying degrees.”	“Better understanding for parents of what they will learn with/on them.”	“Teachers use devices more often. At the moment they are often carried to class and not used.”

Table 4 (continued)

Themes	Sample comment	Sample comment	Sample comment
Textbooks	<p>“Textbooks are on the device. Every teacher uses the device not only some. A small tablet device that had USB capability. Has to fit in child’s schoolbag. Be lightweight and portable. I would not recommend a laptop. Possible a Microsoft surface with attachable keyboard. Similar size to tablet or iPad (not iPad mini).”</p>	<p>“The biggest issue is when the next years text books are published - surely now there are options to buy EITHER text book or downloadable version.”</p>	<p>“Would like to be able to purchase more ebooks rather than purchasing text books and then using the code inside the text book to download the ebook copy.”</p>
			<p>“Actually use the devices for most subjects, replace the textbooks as we are doubling up cost wise currently needing both. The one ebook purchased this year didn’t end up working on my daughter’s laptop so was useless.”</p>

by Keane and Keane (2018) that good communication is important for the successful implementation of a 1:1 Program.

5 Conclusion

As Janssen and Phillipson (2015) suggest, for many schools the implementation of a BYOD Program was to smooth the transition from a situation where the devices were provided by DER funding to one where the parents pay for the device. By design a BYOD Program, rather than a program specifying one particular device, reduces costs to parents by allowing them to source the cheapest possible device or to utilise one that they already possess.

However, going down the BYOD path creates problems difficult to resolve. By implementing a BYOD Program – and a voluntary one at that – the school was unable or unwilling to reduce costs in other areas. This was reflected in the commentary about the costs – and bulk – of textbooks. Therefore, BYOD which was supposed to be a lower cost solution than a designated device, came to be seen as an additional cost. Parents clearly expected at least some kind of trade off in terms of expenditure.

The textbook issue had other ramifications as well. By having devices and textbooks, the school was sending mixed messages about the nature of the program. There was little clarity for parents about how the devices were to be used in class. This lack of clarity was a constant theme in the responses from parents who complained much more about the lack of use of the devices that they did about overuse. Parents, for the most part, expressed a preference for a compulsory program with a designated device to enable clarity of classroom use. There was frustration, too, that well into the program, many teachers seemed unable to articulate how the devices were being used in the classroom. However, the very nature of the BYOD Program was likely to be the cause of this apparent lack of transparency. Having multiple devices in the classroom would, of necessity, make planning for digital technology use highly problematic. Moreover, the retention of textbooks on the booklist suggests a conservative approach to learning and would likely act as a disincentive to change.

If the BYOD Program was implemented to smooth the transition from DER funding of devices to families bearing the cost themselves, then it was only partly successful. Overwhelmingly, the response from parents was positive in their support of the concept of having devices in the classroom but they clearly wanted reassurance that their investment was worthwhile and that the devices would be used for improved learning. Instead, in justifying the benefits of the program, the school explained that “BYOD provides students and teachers with the opportunity to move towards personalised learning, differentiated teaching strategies and a focus on the learning; not the device.” The telling aspect of this is the transitional nature being described. The benefits depicted here were not apparent to the parents. In shifting costs of devices to parents – as happens in all schools with 1:1

Programs – it was clear that parents wanted more from the partnership with the school than a mitigation of costs; they were looking for an understanding about how the use of devices would improve the learning for their children.

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William Keane: made substantial contributions to the interpretation of data, drafted the work or revised it critically for important intellectual content, approved the version to be published.

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