



“On the Fly”: Collaboration Between Teachers and Teacher Librarians in Inquiry Learning

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Abstract. Education in a post-truth era poses unique challenges for educators supporting youth in developing the critical thinking and information literacy skills needed to navigate an information landscape fraught with fake news, alternative facts, and information overload. Australia faces further issues with a crowded curriculum, funding cuts in education, and underachievement on national and international tests. As trained professionals in information literacy, teacher librarians are in a strong position to guide teachers and students towards achievement of these important information literacy and lifelong learning skills. The purpose of this research was to explore collaboration between Australian teachers and teacher librarians while planning, delivering, and assessing inquiry units supporting information literacy skills. Using a phenomenological case study methodology with six schools, eight teachers and teacher librarians describe their experiences, sometimes “on the fly” as teacher librarian Annie notes, identifying important elements to successful and unsuccessful collaborations including schoolwide culture, time, and relationships.

Keywords: Information literacy · Inquiry learning · Collaboration · School libraries · Teacher librarians

1 Introduction

Education in a post-truth era poses unique challenges for educators supporting youth in learning how to engage with an information landscape fraught with fake news, alternative facts, and information overload. Australia faces further challenges with the underachievement of Australian students in national and international tests [1]; a growing focus on content in syllabi [2]; and increased accountability and “administrivia” for teachers [3]. In their recent curriculum review, the New South Wales Educational Standard Authority carves a path towards reducing the focus on content and moving forward to prioritizing information literacy in all its phases for Australian students [2]. As trained professionals in information literacy, teacher librarians (TLs) are in a strong position to guide teachers and students towards achievement of these skills and lifelong learning. However, collaboration at the highest level [4–6] where teachers and TLs work together on an embedded information literacy program across the school is rarely realized in Australia. Recent

research confirms the essential but elusive nature of collaboration at the international level [7] and in Australia [8].

The purpose of this research was to explore collaboration between Australian teachers and TLs while planning, delivering, and assessing inquiry units supporting information literacy skills. This research sought to address the following questions:

- How do Australian TLs and teachers describe and perceive their shared experiences engaging in an inquiry unit through the planning, delivery, and assessing stages?
- What are common elements of successful and unsuccessful collaborative inquiry units identified by experienced TLs and teachers?

This research uses the lens of Montiel-Overall's four models of collaboration [5] to examine the experiences of our teacher and TL participants in Australia.

2 Literature Review

2.1 The Need for Information Literacy Skills in a Post-truth World

At a time when inquiry-based learning and information skills are now embedded into global curricula [9–14], there has been a corresponding bombardment on social media channels of news that is manufactured and unreliable - false information. Students need to develop skills to find their way through a maze of unreliable material, and there has been a growth in publications helping teachers and TLs to educate students in critical thinking skills in the age of fake news [15]. In an environment of increased information uncertainty, the central traditional role of the TL to support information literacy is not being used enough [16, 17] and/or is being misunderstood [18].

The best way to ensure that students learn the critical thinking skills demanded by the present and the future is through teams of teachers and TLs collaborating to design, present, and assess inquiry units where critical skills are embedded. That collaboration is difficult to achieve at its highest level, because of the misunderstood role of the TL; pressures of time and accountability felt by Australian teachers; and reduced numbers of trained TLs and reduced funding for school libraries across Australia.

2.2 The Misunderstood Role of the Teacher Librarian

TLs in training in Australia are taught that they are three in one – Teacher, information specialist, and leader [19]. Sheerman asserts:

The teacher librarian (TL) holds an important yet rarely understood role in the school community. A TL's primary role is that of an information specialist, trained in the teaching and integration of information literacy skills and inquiry skills across the curriculum, as well as being a library collection manager [19, p. 4].

Sheerman goes on to show that it is through a program of Guided Inquiry [20] at her school that she is able to fully realize the potential of the TL role [19]. When aspiring TLs reach schools, the reality is frequently quite different. There is often no expectation that the TL will be involved in an inquiry learning program at all, and the role is often

delegated to a subsidiary one where, for example, teaching time relief for the classroom teacher (in Australia known as Release from Face to Face or RFF) becomes a main part of the TL role. Reasons for the discrepancy between the TL theory and the actual practice in schools are various, possibly the most pressing being lack of time for teachers to collaborate with TLs at all, or not enough time to set up and maintain collaboration at its highest level [18]. Additionally, there is widespread ignorance amongst teachers and school leaders as to the role of the TL. As Montiel-Overall states:

Almost no information is available about educators’ awareness of the role of librarians as collaborative partners in developing and implementing curriculum...In general, teachers do not appear to be aware of how teachers and librarians are expected to work together nor of the underlying reasons for teacher and librarian collaboration. [21, p. 32].

2.3 Pressures of Time and Accountability for Australian Teachers

Despite the obvious need for the development of critical literacy skills, there has been a paradoxical increase in emphasis on content at the expense of skills in the Australian Curriculum and in the state of New South Wales (NSW) according to the New South Wales Educational Standards Authority (NESA). Many teachers are finding the work of ‘getting through the syllabus’ difficult. Also, the Australian Institute of Teaching and Learning (AITSL) has rigorous accreditation requirements all teachers must meet and maintain, and the process of doing so is very time-consuming. These factors were some of the reasons for the recent NSW Curriculum Review [2]. Key new directions for a re-designed curriculum for this state include “more time for teachers to focus on teaching and learning by reviewing extra-curricular issues and topics, and streamlining compliance-related requirements” [22, p. 13]. The report also concluded that there is too much clutter in most syllabuses, meaning less time to focus on the basics [22, p. 8]. The process of re-designing the NSW curriculum is just beginning, but will roll out over the next decade.

2.4 Reduced Staff and Reduced Funding for School Libraries in Australia

The annual Softlink survey of school libraries and TLs notes considerably reduced funding for school libraries across Australia [23]. The Students Need School Libraries (SNSL) campaign, an advocacy body for school libraries in Australia, notes a steady decrease in TL positions [24]. The mission statement for SNSL reads:

In the face of Australia’s falling ranking in educational outcomes among OECD countries and rapidly changing expectations for the future workforce, a coalition of Australian school library associations formed to advocate nationally for the reinvigoration of school libraries. We believe that all children need excellent school library services delivered by qualified staff to learn the digital and information literacy skills required to succeed in the 21st century [25].

2.5 Potential of Collaboration

Against this background of increased need for the teaching of vital digital literacy skills, the pressing issue of the workload of teachers, and the continuing devaluation of the role

of the TL, collaboration stands out as key to solving the dilemmas of overworked teachers and under-utilized TLs, while advancing the information literacy skills of students in inquiry learning programs. Collaboration has been much studied in the TL literature as it has been a ‘holy grail’ for the best achievement of a school library mission for a long time, yet is difficult to achieve and sustain [5]. A definition of collaboration between teachers and TLs follows:

Collaboration is a trusting, working relationship between two or more equal participants involved in shared thinking, shared planning and shared creation of integrated instruction. Through a shared vision and shared objectives, student learning opportunities are created that integrate subject content and information literacy by co-planning, co-implementing, and co-evaluating students’ progress throughout the instructional process in order to improve student learning in all areas of the curriculum [5, p. 4].

Montiel-Overall [5] posits four models of collaboration, that are derived from Loertscher’s taxonomy [4] and shown below in Table 1. The models are distinguished from each other by the amount and level of collaboration entailed. The highest level at Model D is characterized by full integration of an information literacy curriculum across the school, defined in this study as TLs working with teachers to plan, deliver, and assess inquiry learning units.

The top level collaboration described in Model D appears to be very difficult to achieve in practice. Langford notes that often the relationship between teachers and TLs “is built on the principle of separation, rather than co-creation” [26, p. 33]. This is exacerbated in Australia by the focus on RFF. The pedagogical knowledge and educational experience of the TL becomes lost as the teacher seeks out the TL’s knowledge on resourcing instead of teaching [26].

Langford attributes Fullan in believing that collaboration originates with a shared moral purpose, with teacher and TL equally engaged in the intellectual excitement of designing learning experiences through inquiry [27, 28]. Williamson, Archibald, and McGregor found that it is the intrinsic interest felt by collaborating teachers and TLs that is a key motivator for high level collaboration [29]. There are substantial obstacles in the way of such true collaboration, such as lack of time to plan, deliver and assess inquiry units, lack of understanding of the TL role in inquiry, and an emphasis on content at the expense of skills in the current version of the Australian Curriculum.

Mardis comments on the continuing difficulties TLs have with achieving full collaboration with teachers, despite research and models supporting it and cites school context as a major impeding factor [7]. “School librarians have not often been able to establish collaborative relationships in environments where working together is not valued or supported. Indeed, for many school librarians, true collaboration is “more of a grail than a goal” [30, p. xvii]. Mardis’ international review of research on collaboration identifies facilitators such as agency provided by the principal and teaching faculty as well as the importance of TL and teacher preparation [7]. Haycock agrees that teacher preparation programs should highlight the skills of TLs because they are skilled teachers and can demonstrate personal qualities such as leadership [31]. Haycock also calls on TL training to include learning how to collaborate on instructional design, teaching and assessment, and putting that into place in practicums [31, p. 250–251].

Table 1. Attributes of collaboration [5, p. 20]

Examples of descriptors			
Model A: coordination	Model B: cooperation	Model C: integrated instruction	Model D: Integrated curriculum
Shallow trust Congenial Collegial Friendly Communication	Shallow trust Respect Congenial Collegial Friendly Communication Dialogue Propensity to share	Deep trust Commitment Respect Congenial Collegial Friendly Communication Dialogue Propensity to share	Deep trust Commitment Respect Congenial Collegial Friendly Communication Dialogue Propensity to share
Examples of activities involved in collaboration			
Gather resources	Gather resources Share resources Support Help Assist Contribute Aid Share funds Share space Share collection Share time Share students	Gather resources Share resources Support Help Assist Contribute Aid Share funds Share space Share collection Share time Share students Share objectives Share thinking Share problem solving Share creation of something new Share knowledge Co-plan Co-implement Co-evaluate Co-execute integration of classroom instructions and library instruction	Gather resources Share resources Support Help Assist Contribute Aid Share funds Share space Share collection Share time Share students Share objectives Share thinking Share problem solving Share creation of something new Share knowledge Co-plan Co-implement Co-evaluate Co-execute integration of classroom instructions and library instruction across the curriculum
Attitude			
		Partners are equal	Partners are equal

Merga explored TLs' views on collaboration to improve students' literacy achievement and how such collaborative relationships can be strengthened [8]. She notes that there is considerable international research on collaboration in the school library field but very little in the general education field. These findings suggest that there was not a uniform expectation of collaboration with the TL on the part of the teacher, that the quality of collaboration was variable, and that classroom teachers do not see the TL as a co-teacher. Merga notes that "successful collaboration is directly related to quality of relationships, goals and rewards" as well as the context and culture of the school [8, p. 17], elements of collaboration echoed in Montiel-Overall's models as well [5].

While Merga's research focused on collaboration with teachers and TLs in literacy, the emphasis on inquiry learning and information skills in the Australian curriculum (and globally as well) calls for research focused on collaboration with teachers and TLs in this area. Evidence supporting the potential of the TL in promoting these skills through collaboration with teachers is the focus of the present study.

3 Methodology

The purpose of this research is to explore collaboration between Australian teachers and TLs while planning, delivering, and assessing inquiry units supporting information literacy skills. Researchers used a phenomenological design as the foundation for this study in order to investigate the lived experiences of teachers and TLs during collaborative units [32]. This methodological approach is non-directive and leaves the questioning open so that themes emerge naturally throughout the data collection process [33]. This project consisted of two phases: (1) an online questionnaire for TLs; and (2) interviews with TLs and the teachers with whom they have collaborated. The research questions guided the content of the questionnaire and interviews. This paper focuses solely on the interview data where we delved deeper into the collaboration process with our participants and does not address the broad data on inquiry learning in Australia collected from the questionnaire.

In the first phase, questionnaire respondents had the opportunity to identify themselves, giving their name and email for follow-up interviews with their collaborating teachers. Of the 110 respondents for Phase One, 26 TLs supplied their contact information and researchers emailed them directly to arrange interviews. Of these initial 26 respondents, only six TLs and two collaborating teachers agreed to be interviewed. With such a small sample, the researchers decided it was necessary to use a case study methodology [33], examining in depth the two teacher/TL pairs and the four individual TLs, utilizing their questionnaire and interview data in addition to artefacts from their inquiry teaching units where available (e.g., lesson plans, student assessments, worksheets).

As shown in Table 2, our eight participants taught in six diverse types of schools (e.g., primary/elementary and/or secondary/high, government/public or independent/private) across three states including New South Wales (NSW), South Australia (SA), and Western Australia (WA) along with the Australian Capital Territory (ACT) in Australia. All six TLs had over ten years of teaching experience and both teachers had five to ten years of experience as well. The participants used a variety of established inquiry methods including The Big6 developed by Mike Eisenberg and Bob Berkowitz [34] the Guided Inquiry Design (GID) process developed by Kuhlthau, Maniotes, and Caspari [35], Project-based Learning (PBL), Library Learning Path [36], International Baccalaureate’s Primary Years Program (IB PYP), and individual state processes in WA and NSW based on the Information Search Process (ISP) developed by Kuhlthau [37]. The participants range in delivering from two to over six inquiry units per year and, as noted in the far right column of the table, have unique elements to their school’s culture that prohibit and support inquiry learning and collaboration. Participants chose their own pseudonyms.

In analyzing the findings, we used Montiel-Overall’s Models of Librarian and Teacher Working Relationships [5, p. 20] as described in the literature review and shown in Table 1.

4 Findings

In a case study approach, Patton notes that first the individual cases must be analyzed and then a “cross-case pattern analysis” is used to find emerging themes among the cases [33, p. 447]. Thus, our findings are presented in this way, detailing each of the six cases (four single TLs and two TL/teacher pairs) within the lens of Montiel-Overall’s Models and then connecting the patterns among these cases [5].

4.1 TL Alexandra

Alexandra was a TL in an International Baccalaureate Primary school in ACT, and was a very experienced teacher and TL. The school used the IB PYP as their inquiry method. The main advantages of IB PYP for collaborating for inquiry purposes were that all units of work were by inquiry and that teachers gave two periods a fortnight for planning. Alexandra notes:

And so the team will meet each fortnight with our curriculum planner who is our PYP coordinator and... plan out...the curriculum requirements and talk together as a team. And as TL, I go to that meeting as well so I know exactly what’s going on in their classrooms and what they are doing and then where I can tap in to help them.

This did not automatically include Alexandra as TL, and she worked hard to make sure she was included in the planning meetings. As she said, “I find by jumping in and suggesting how the library team can help with that idea is the best way to make your presence known and to work with them.” As noted by Montiel-Overall [5], Alexandra believed that relationships are important to high level collaboration: “Collaboration... boils down to relationships, in the most simplistic way, some teams are really open to it and some are not always so open to these sorts of things.” Because inquiry as an approach

Table 2. Description of teacher and TL participants

Position and pseudonym	State and type of school	Years of teaching experience	Inquiry methods and general experience	Unique elements to school culture
TL Alexandra	ACT, Primary and Secondary, Independent	10 plus years	Used a combination inquiry method influenced by the IB PYP; Delivered 6+ units per year	As part of the IB PYP, collaboration is an expectation built into the teaching and learning at this school
TL Canowindra	WA, Secondary, Government	10 plus years	Used WA Inquiry Process; Delivered 3–5 units per year	There are big funding issues in this state affecting teaching and time to work with teachers as well as the TL position being at risk
TL Emma	NSW, Primary and Secondary, Independent	10 plus years	Used GID and NSW ISP; Delivered 6+ units per year	At the time of interview, this school had a schoolwide culture of using GID
TL Snowy	NSW, Primary, Government	10 plus years	Used Library Learning Path; Delivered 2 units per year	Snowy was in a new school with an administrator unfamiliar with the role of the TL so she included collaboration as a professional development goal for the year on her individual plan to show its importance to her
TL Annie	NSW, Primary and Secondary, Independent	10 plus years	Used GID, NSW ISP, and PBL; Delivered 3–5 units per year	There was lots of support from this school for collaboration with inquiry methods embedded into the school culture and teaching expectations

(continued)

Table 2. (continued)

Position and pseudonym	State and type of school	Years of teaching experience	Inquiry methods and general experience	Unique elements to school culture
Teacher Amy		5–10 years	Used GID, NSW ISP, and PBL	
TL Maggie	SA, Primary, Government	10 plus years	Used GID and Big6; Delivered 3–5 units per year	Maggie and Suzanne were friends first and wanted to work on a unit together. They taught in a metropolitan school with students from low socio-economic backgrounds
Teacher Suzanne		5–10 years	Used PBL; Delivered 3–5 units per year	

to learning was central to the curriculum in her school, the level of collaboration she could achieve is potentially at Model D Integrated Curriculum, were it not for the fact that she had to work hard to ensure that the TL was included at all phases of inquiry, and that there was work to develop on including the TL in assessment. She talked about feedback to teachers as being “rushed; we will often talk about the challenges we had today, and I guess that’s something we need to refine.” Nevertheless, there was ample evidence in her responses of Model C Integrated Instruction, with potential for growth to Model D Integrated Curriculum.

4.2 TL Canowindra

Canowindra was a TL in a WA secondary government school and had been a TL for over ten years. She used the WA Inquiry Process (similar to the Big 6) in the inquiry units she delivered three to five times a school year. A unique element in Canowindra’s school context was that WA was delivering massive budget cuts to schools that have meant many were losing their teacher librarians and libraries. She noted “the support mechanisms for teachers are gradually being pulled away with all of the cuts to education. We have teachers who are exhausted because they are not getting support from the department...they’re pulling support from everywhere, so that there are very few TLs in schools now.” Further, since she (as all qualified Australian TLs) had a teaching degree in other subject area(s), she was pulled out of the library to teach classroom subjects like English and Social Studies. This limit on her time caused problems in implementing Model D Integrated Curriculum [5].

Nonetheless, the collaboration on inquiry units described by Canowindra showed attributes of Montiel-Overall’s Model C Integrated Instruction [5]. For example, like Alexandra, she noted the importance of relationships: “It’s very much a relationship issue

in building a trust with other teachers that you have the best interest of their learning area, and their students at heart.” This was in line with the “Deep Trust” and “Collegial” descriptors Montiel-Overall included in Table 1 [5]. Canowindra also described the importance of being helpful and supportive to time-poor, “exhausted” teachers dealing with a crowded curriculum by offering to mark assessments: “In 30 years, I have been saying to teachers, ‘I’m quite happy to help you mark’ ... I’ve never had a teacher take it up, but I think the mere fact that...the offer is always there, it’s a plus.” Also, the teaching notes for Canowindra’s latest unit on Ancient Civilizations listed responsibilities for library staff and teacher that help make the roles and responsibilities of each clearer throughout the unit. These aspects of Canowindra’s teaching and collaboration practices were evidence towards a defining component of Montiel-Overall’s Model C Integrated Instruction as TL and Teacher “Co-execute integration of classroom instructions and library instruction” [5, p. 20].

4.3 TL Emma

Emma was Head of Information Services at an independent Christian school in NSW in a suburban area. She had more than 20 years of experience as a teacher and 15 years as a TL. She delivered over six units a year within Montiel-Overall’s Model C and some Model D [5]. Emma’s inquiry program was one of the closest of any of the participants to achieve Model D Integrated Curriculum based on Guided Inquiry Design across the entire school and curriculum.

Emma emphasized the importance of planning, delivering, and assessment being all covered at planning, saying “[these elements] are all wrapped up with the planning, because in the planning, if you don’t think about the delivery and the assessment, of course, it’s all going to fall flat.” She noted that she tended to write the inquiry units and ensure there are suitable resources throughout, working with teachers to create an inspiring opening to the unit. Finally, she said that it was important that teachers understand inquiry theory and practice, using the example of a teacher who wanted to work with her on a Guided Inquiry unit. She said she would but only if he read Kuhlthau, Maniotes, and Caspari’s book *Guided Inquiry: Learning in the 21st Century* [20] first. Emma told the teacher:

“...you see the yellow tags? particularly read them!” and I had about 30 yellow tags, and you know the Christmas holidays he did and he came back and said “I’m ready, let’s go!” Because he understood the theory, he was right there the whole time doing everything just how it should be done in terms of guiding the kids... it was one of those outstanding inquiries where the kids were on fire.

Emma’s anecdote also spoke to her reputation at her school as an expert educator and mentor to other teachers developed through time and experience.

4.4 TL Snowy

Snowy was a TL in a NSW primary government school and had worked as a TL for over ten years. She delivered two collaborative inquiry units per school year and used an inquiry process called the Library Learning Path [36]. This process was developed by teacher librarians in a coastal region in Australia north of Sydney and is used widely

in that area. At the time of Snowy’s interview, she was in a new school with a principal unfamiliar with the role of the TL or the potential impact a TL can have on supporting students and teachers. Snowy took this as an opportunity to include collaboration with teachers as a professional development goal for the year on her individual plan to show its importance to her principal.

Snowy’s determination and ingenuity in pursuing collaborative opportunities with her teachers defined Montiel-Overall’s Model C Integrated Instruction [5]. This was evidenced in numerous ways through Snowy’s interview and survey responses. Like Canowindra, in the planning document for the inquiry units, Snowy added a responsibility column to make the roles the TL and teacher will follow throughout the unit more transparent. Snowy’s description of one unit’s “planning day” shares examples of activities from Montiel-Overall’s Model C: “So on the planning day...I approached them and had some resources and had a scaffold and some ideas and sat down and had a discussion with them. And they had some resources as well they showed me.” Snowy noted the teachers are:

Very grateful to take, if we take some of the teaching load from them. And research skills are a tough thing to do when you’re a classroom teacher...But I think what I’m seeing is that, once you take the load off an individual and you share it, people feel a lot more relaxed. And they see somebody else with skills and they go, “Ah yeah.”

4.5 TL Annie and Teacher Amy

TL Annie and Teacher Amy came from an urban Christian all-boys independent school in NSW with a long history of inquiry and collaboration. TL Annie had over ten years of experience and delivered between three and five inquiry units per year using Guided Inquiry Design, Project-based Learning, or the NSW Information Search Process. Teacher Amy described TL Annie:

The TL at this school is a phenomenally experienced and talented teacher and so drawing off her wealth of knowledge and the great ideas she comes up with, it’s fantastic. Collaborating with someone who has a lot of ideas is empowering. And the boys benefit from having a shared knowledge and shared teaching experience.

This was a school where collaboration had been going for a long time, and as Annie said: “It’s also been the culture of the school that that’s how the library works. So there’s no choice about it really.” This is a Guided Inquiry school, that should mean that the unit of work was all done by inquiry, but this did not always happen. The inquiry task was often only a small part of the content of the unit, which was not true inquiry. As Annie said about planning and in our paper’s title: “I’d say planning is a big problem. It’s often ‘on the fly’ is the honest truth.” Unfortunately, Model D was not achieved because of the impact of time and the crowded curriculum to carry out inquiry units- the shortage being felt at all three stages (planning, delivery, and assessing) of the units. A shortage in planning time made the teaching team usually choose an already written unit with just a small aspect of the unit focusing on inquiry. As Teacher Amy said:

It is a bit tricky because you don’t want to be doubling up on the content you are teaching so we just sort of marked off an area of the program that would be for this inquiry-based unit and we are going to do an inquiry study on a native Australian animal and that will be the inquiry process.

Like TL Emma, time shortage forced TL Annie to be the creator of the inquiry part of the units, often developing a booklet guide for students to use during the unit based on the phases of the Guided Inquiry Design process. Annie said, “I always feel the start of it is really important so I always try to be involved and deliver the beginning of it.” She felt she often had to let go after the initial Open/Immerse/Explore stages, because of the volume of inquiry units she was doing in the school. But she did not like this, and regarded it as an area she could improve on, like developing the whole inquiry unit across the curriculum. Further, assessment was not part of her TL role in inquiry, and reflection was limited also because of the impact of time on this part of inquiry learning. Teacher Amy says, “We often don’t spend time reflecting on what it is that we did. Because you are organising the next one. But yea, look we are a little time-poor as teachers.”

4.6 TL Maggie and Teacher Suzanne

TL Maggie and Teacher Suzanne worked in a primary government school in South Australia in a metropolitan area with students from low socio-economic backgrounds. TL Maggie was an experienced educator with over ten years in the library and education while Teacher Suzanne was a bit more of a novice with five to ten years of experience in education. They both delivered three to five inquiry units a year and while TL Maggie used and preferred Guided Inquiry Design and the Big6 inquiry processes, Teacher Suzanne preferred Project-Based Learning in her classroom. Despite many schools in SA not having TLs as the government does not fund them specifically, this school obviously valued the role of the TL and the library resource centre for learning. Maggie noted, “the school is very strong on research-based learning and using the resource centre [library] for what it is there for.” As noted by some of the other participants in our study, the collaboration between TL Maggie and Teacher Suzanne grew because they had “developed a really good relationship” as Suzanne said. They were friends in their school and they decided they wanted to work more together.

In their interviews, TL Maggie and Teacher Suzanne described a collaborative inquiry unit spanning various areas of the curriculum and showing aspects of Montiel-Overall’s Model D Integrated Curriculum [5]. They delivered this with Year Four/Year Five students exploring and creating an Australian indigenous plant garden throughout the 2018 school year. This topic was chosen to honor the Aboriginal Education Officer at their school who was terminally ill with cancer. Suzanne described “One of her things she’d always wanted to do for the school was develop an indigenous food garden, so it could be used with the other kitchen garden projects. It was another way to tie Aboriginal culture to the school.” With the culminating project being an actual garden, this unit was highly complex and integrated various subjects from English, mathematics, science, and Indigenous Australian culture and history. The students identified and wrote letters to community stakeholders to raise funds for the project, used high level measurements and geometry to design the garden, and worked with the kitchen garden teacher to choose appropriate plants. Maggie and Suzanne worked together to plan, deliver, and assess the students as they completed various milestones at the end of each of the four school terms, culminating in the unveiling of the garden at the end of the school year. This unit exemplified Model D with the integration of various topics across the curriculum [5].

5 Case Comparisons and Conclusions

Despite the drive of many of our TLs in creating a curriculum-wide culture of collaboration school-wide, most were operating at Montiel-Overall’s Model C Integrated Instruction instead of the “holy grail” described in Model D Integrated Curriculum [5]. As defined in the literature review and shown in Table 1, the main difference between these two models is the integration of collaboration “across the curriculum.” Findings across our six cases identified two themes as having the biggest impact on this issue: schoolwide culture (including an understanding of the nature of information literacy and the role of the TL) and time (often hindered or supported by the schoolwide culture.) An example of the importance of schoolwide culture came from TL Emma’s school. At the time of our original interview with Emma in 2019, her school had an administration supportive and vocal about inquiry learning across the curriculum and many inquiry units were happening at all levels. In a recent discussion with Emma, she described a new administration at her school that has shut down the inquiry programs to focus back on explicit teaching. In regards to time, our respondents describe “on the fly” collaboration, as TL Annie’s quote from our paper’s title, carried out at a low level. Model D collaboration [5, 6, 21], where planning, delivery, and assessment of inquiry units happens at the level of shared thinking, shared problem solving and shared creation of integrated instruction was rare amongst our respondents - described by TL Annie as happening “once in a blue moon.” At the same time, the researchers recognised that Model C was second best and a positive outlook for these schools; however, it was also clear that the TLs in this study were experienced educators who worked hard to build their school library programs and inquiry culture. In volunteering for this research, they showed their feelings of support for the TL profession and security in their collaborative roles.

A further critical issue was the decline of school library budgets and TL staff allocations [24] as described by TL Canowindra as a big problem in her state. However, at the same time, one of the only examples of Model D was with our TL Maggie and Teacher Suzanne who described an elaborate inquiry unit where students created an indigenous Australian plant garden. Their state was also suffering budget cuts and TL position losses, but at this particular government primary school in a low socioeconomic area, collaboration was thriving due to a supportive administration and schoolwide culture of working together as noted by TL Maggie: “there’s a lot of collaborative teaching, there’s a lot of collaborative learning...it is a brilliant school to work at.”

Many of our participants also highlighted the difference between primary and secondary schools in relation to inquiry and collaboration. TL Maggie identified that “primary schools have that freedom to explore the design, a unit of inquiry-based learning across a full year and across a full class and curriculum.” TL Annie and Teacher Amy described something similar when they discussed how the primary curriculum and syllabi naturally integrate different elements of inquiry in contrast to the secondary syllabi. TL Emma’s school is across primary and secondary levels so she had a unique perspective on this:

I find the secondary teachers are so focused on their senior classes that to even concentrate long enough to have a conversation with you is very difficult whereas with primary because, say these primary teachers, they integrate. Our primary teachers are

just amazing and they work in teams and they do collaborate within their teams for everything anyway.

This was a problem as Canowindra discussed seeing a decline in the information literacy skill level students were bringing to secondary school and that teachers were not ready to teach these extra skills. She noted, “The expectation is, with the general classroom teacher, the kids are still coming with the skills that they’ve always come with, which isn’t the case.” This may also relate to the funding issues described by Canowindra earlier; either way it is a concern and even further drain on already time-poor Australian teachers and disappearing TLs. TL positions need more security and better definition in Australian schools as well as in the pre-service training of teachers and administrators to support information literacy learning.

The role of the TL as an information literacy expert is even more critical in a post-truth era. As Keyes noted, “In the post-truth era, borders blur between truth and lies, honesty and dishonesty, fiction and nonfiction. Deceiving others becomes a challenge, a game, and ultimately a habit” [38]. We have answers to disempowering the post-truth era in teaching youth how to think critically. The TL and the school library, working in collaboration with teachers, is one of these answers.

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