"Learning to be a learner":
Teacher Librarians Striving to Teach Lifelong Skills

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Abstract
"Learning to be a learner" is how Tessa, a grades 6-12 teacher librarian, said she would describe the idea of self-regulated learning to her students. Teacher librarians are in a unique position within schools to truly serve as lifelong learning coaches for students, focused on process and skills instead of content. Further, their reach extends across levels in the school, touching every single student through their teaching and the development and maintenance of the library collection. This paper presents findings from a study investigating how US teacher librarians apply metacognitive strategies in their teaching. An unexpected theme emerged from the interviews as participants described lifelong learning skills they strive to impart to students. These skills included cognitive, personal, and interpersonal skills as defined by UNICEF (2003) and exemplified by the theme for the 2013 International Association of School Librarians' Conference.

Keywords: Lifelong Learning, Life Skills, Metacognition, Self-regulated Learning

Introduction
"Learning to be a learner" is how Tessa, a grades 6-12 teacher librarian, said she would describe the idea of self-regulated learning (SRL) to her students. Teacher librarians are in a unique position within schools to serve as lifelong learning coaches for students, focused on process and skills instead of content. Further, they have the ability to touch every student in the school through their teaching and the development and maintenance of the library collection. This paper presents findings from a study investigating how teacher librarians apply metacognitive and SRL strategies in their teaching. An unexpected (and unsolicited) theme emerged from the interviews as the teacher librarians described the "life-skills" and lessons about learning they strive to impart to students. These lifelong learning skills included cognitive, personal, and interpersonal skills as defined by UNICEF (2003) and exemplified by the theme for the 2013 International Association of School Librarians' Conference. This paper first presents literature from the field of school libraries relating to the teaching of life-skills and the connection to information literacy skills, then connects this to the literature surrounding metacognition and SRL, and finally presents the interview findings from our study.

Literature Review
Lifelong learning skills encompass a broad range of librarian dispositions and student abilities and are of documented importance in statements from school library associations

and curricula across the globe in countries like Australia (ASLA, 2004), Canada (ATLC & CSLA, 1997), Japan (Kim, 2011), South Africa (Moll, 2009), and the United States (AASL, 2007). Life-skills are also noted by other groups representing school libraries. In a Delphi study enlisting members of the editorial boards of top international journals in the school library field, this panel of experts identified "lifelong learning" as an important disposition school librarians should possess (Bush & Jones, 2010). Practicing US librarians in a focus group study by Kimmel, Dickinson, and Doll (2012) stressed how critical the disposition of professional continued learning and growth was for those in the field. Professional organizations, educators, and others in the school library field note the importance of lifelong learning for teacher librarians as professionals.

At the same time, lifelong learning is at the heart of skills and abilities stressed in the school library curriculum like the focus the field places on information literacy. Sturges and Gastinger (2010) go beyond the description of information literacy as a life skill and describe it as a basic human right in their connection to Article Nineteen of the United Nations *Universal Declaration of Human Rights* (1948) stressing intellectual freedom. Wolf (2007) defines information literacy as "the ability to access, evaluate, and use information efficiently and effectively" (para. 12). In order to develop this ability, students must enlist a range of skills including problem solving, critical thinking, adaptability, and organization. Such skills hold relevance in life outside of the classroom and even the workplace, like competence in reading, which is also emphasized in a life-skills frame by Morellion (2009).

Research examining the use of structured information literacy models in the school library suggests positive connections for students in developing important life skills. Herring (2006) investigated the perceptions of students and teachers using the PLUS information literacy model in a high school in the United Kingdom. Results from this study revealed that students felt more confident in the quality of their finished product and that they felt the model helped to improve their self-image. Teachers voiced such perceptions of their students' growth as learners and researchers. Wolf, Brush, and Saye (2003) found similar results in their study of middle school students in the US using The Big6 information skills model. The structure afforded by the model helped "students to manage complex cognitive tasks and processes" and scaffold their organizational skills (Wolf, Brush, & Saye, 2003, para. 46). This gave them more time and energy to focus on the more cognitive, intellectual aspects of their assignment. The students progressed with confidence according to a self-report questionnaire and journal logs and scored high on the grading rubric for the completed task. There is a notable connection between life-skills and information literacy as described in these studies, specifically cognitive skills in "analyzing and using information" and personal skills in "developing personal agency and managing oneself" (UNICEF, 2003, para. 3). Further, these findings reveal a deep connection with these skills and those emphasized by the discipline of metacognition and self-regulation (Wolf, 2007; Wolf, Brush, & Saye, 2003).

The action of reflecting on one's own thinking is metacognition. One of the earliest researchers on this topic defined it in two parts: metacognitive knowledge and metacognitive experiences (Flavell, 1979). Flavell explains the phenomenon, writing "…the monitoring of cognitive enterprises proceeds through the actions of and interactions among metacognitive knowledge, metacognitive experiences, goals/tasks, and actions/strategies" (1979, p. 909). He describes metacognitive knowledge as "…that segment of your (a child's, and adult's) stored world knowledge that has to do with their diverse cognitive tasks, goals, actions, and experiences" (Flavell, 1979, p. 906).

Interestingly, Flavell's description of metacognition parallels "life-skills" as defined by UNICEF (2003), "cognitive skills for analyzing and using information, personal skills for developing personal agency and managing oneself, and inter-personal skills for communicating and interacting effectively with others" (para. 3). Life-skills encompass cognition, experiences, and self-management, as does Flavell's (1979) interpretation of

metacognition. Both also suggest that the ability to self-monitor is not just an academic endeavor, but rather a necessary asset to carry-out learning and other life tasks beyond the classroom.

Furthermore, metacognition is one of the major components of SRL and problem solving, in fact "…adequate metacognitive monitoring is considered as a necessary condition for successfully self-regulated learning processes" (Dutke, Barenberg, & Leopold, 2010, p. 204). In essence, "metacognitive knowledge underlies self-regulation" (Stright, Neitzel, Sears, & Hoke-Sinex, 2001, p. 458). Metacognition and SRL focus on learning strategies and skills that can be used across a lifetime. Researchers have recognized the importance of life-long skills, arguing that in our rapidly changing global society, the ability to adapt and change to novel learning and or working conditions is of paramount importance in the workplace (Champaign County Board of Education, 1995) and specific content areas like computer education (Phelps, 2007; Phelps, Ellis, & Hase, 2001). Furthermore, professors and teachers are beginning to develop coursework specifically designed to target life-long learning and life-skills development informed by incorporation of metacognitive components (Iwaoka & Crosetti, 2007; Phelps, 2007). Some argue that in order to think critically as is required in our global society, students must be trained in metacognitive skills:

> With today's multinational, multicultural, complex issues, citizens must be able to sift through large amounts of various data to make intelligent decisions. Thinking critically must be a focus of higher education in order to provide the intellectual training for its students to participate in this world...We posit that lifelong learning takes place through reflection. That is, learning begins with metacognition, knowing one's own thoughts and reflection, which allows the individual to identify the factors that influence one's own thinking. (Colley, Billics, & Lerch, 2012, Abstract)

The literature described here gives a foundation for understanding the significance of lifelong learning and life skills in the school library as well as the connection of metacognition and SRL to this area. As scholars and researchers have noted, such cognitive, personal, and interpersonal skills hold potential for positively impacting students' abilities to navigate and manage life in the workplace, their families, and their futures in general. Findings from the present study will serve to further illuminate these ideas directly from the personal perspectives of practicing teacher librarians.

Methods

The findings presented here emerged from a study analyzing teacher librarians' personal and professional practice of metacognition and metacognitive strategies (Garrison & Spruce, 2013). The methodology for that study replicated the methodological design of the dissertation of one of the authors which used classroom teachers as study participants (Spruce, 2012). Teacher librarians in the Mid-Atlantic region of the United States were emailed a questionnaire, the Teacher Metacognition Scale, created by Wilson and Bai (2010). The last question asked for volunteers to participate in a qualitative extension of the study. The ten teacher librarians who volunteered to participate are described in Table 1 along with their chosen or assigned pseudonyms.

Table 1: Characteristics of Teacher Librarian Participants

Participant	School Level	Highest Degree Attained	National Board Certified Teacher?	Gender	Age	Years of Education Experience (Library/Total)
Naomi	Elementary	Master's	Yes	Female	Under 35	9/9 years

Sydney	Elementary	Master's	No	Female	Between 35-45	4/14 years
Jacqueline	Elementary	Master's	No	Female	Between 35-45	7/20 years
Violet	Elementary	Master's	No	Female	Between 35-45	23/23 years
Eleanor	Middle	Master's	Yes	Female	Over 45	15/18 years
Tessa	Middle & Secondary	Master's	No	Female	Over 45	26/26 years
JDL	Secondary	Master's	No	Male	Between 35-45	16/20 years
Ruby	Secondary	Master's	Yes	Female	Over 45	34/34 years
Owl	Secondary	Master's	No	Female	Over 45	2/20 years
Incognito	Secondary	Master's	Yes	Female	Over 45	15/31 years

Qualitative data collection included interviews with each of the librarians using a guided approach as described by Patton (2002); the interview guide is in Appendix A. The interview guide was originally created for Spruce's (2012) study using classroom teachers as participants. This approach was most appropriate for our purposes because we wanted to ask specific questions about how the librarians applied metacognitive strategies in their learning and teaching across the three stages of learning defined by Zimmerman (2008). We also included potential probes in the interview guide for question clarification when needed for our participants. We recorded the audio from the interviews, which were conducted via Skype, FaceTime, telephone, or in person.

While the initial study (Garrison & Spruce, 2013) focused on librarians' personal and professional practice of metacognition and metacognitive strategies, an unpredicted theme surfaced related to lifelong learning and goals outside of the school context. We coded this emergent idea as "Lifelong Learning" because the librarians discussed it as future skills they anticipated students needing beyond their schooling. Within the lifelong learning code, we identified three sub codes focusing on life-skills. These were cognitive, personal, and interpersonal skills, and were operationally defined using UNICEF's (2003) description of each shown in Table 2 along with our interpretations according to the patterns in our data.

Table 2: Definitions of the Lifelong Learning Sub codes

Lifelong Learning Sub codes	Definitions
Cognitive Skills	• "analyzing and using information" (UNICEF, 2003, para. 3) • skills directly related to career and college preparation
Personal Skills	• "developing personal agency and managing oneself" (UNICEF, 2003, para. 3) • skills related to regulating and controlling one's emotions and reactions to challenges and adversity

Interpersonal Skills	● "communicating and interacting effectively with others" (UNICEF, 2003, para. 3) ● skills related to collaboration and working with others on a professional and/or personal level

Discussion of Findings

The teacher librarians interviewed in this study discussed life-skills they strive to impart to their students. Secondary librarian JDL expressed it thusly, "guiding everything I do is helping these young people to develop skills that will enable them to be more self-sufficient lifelong learners in whatever area." The participants noted the importance of such skills for success in college and the future in general as well as managing relationships with others and oneself. The remaining discussion delves into each of these skills as identified by the teacher librarians. We examine these constructs through the lens of the key terms from UNICEF's (2003) definition of life-skills, namely: Cognitive Skills, Personal Skills, and, Interpersonal Skills.

Cognitive Skills

Cognitive skills noted by the teacher librarians were predominantly related to students' abilities to apply how they learn in school to their future professional and/or college careers. As Grades 6-12 teacher librarian Tessa described, "They're moving into the 21st Century marketplace which is going to be drastically different um, from any other market place we've ever faced." The teacher librarians in this study focused on supporting the development of such process-oriented skills like adaptability, planning, and self-assessment. Tessa goes on from her quote above to comment that in her students' future careers:

> They are going to be not only changing jobs a lot, but the jobs they have, they're going to have to be able to learn new skills and, and adapt to new kinds of ways of doing things and ways of looking at things, and I mean that's, that's the pressure now.

Her comment stresses the adaptive behaviors and attitudes that she anticipates as important skills for her students to practice. Ruby, a secondary teacher librarian, discussed cognitive skills related to planning. She stated: "I think establishing where we want to be is probably the most important thing and then coming up with a plan for how you're going to get there, but knowing that it's not a straight shot."

The teacher librarians in this study also identified the importance of self-assessment and reflection to the process. Middle grades librarian Eleanor was explicit about this and described it in terms of self-questioning. She encourages her students to constantly question themselves during the stages of learning so they will internalize the process:

> …so when they're in the work place, when they're out in the world, they're saying, "Is the best I can do? Have I done my best work?" And that's what I'm always saying to them. "Is this your best work? Is it?" And I mean, I'm nodding my head and saying with a question mark, "Is this your best work? Cause I'm happy if it is, Are you happy?"…And if they say it's their best work then I'm just gonna say, "Well, okay! And what will you do differently next time?"

An interesting theme within this area emerged in that underlying these cognitive skills is the implementation of a structured process. Eleanor specifically noted The Big6, which is an organized and defined process for students to research a topic and develop their own information literacy skills. Eleanor proclaimed:

I believe that the six stages of The Big6 will take through any quest or decision you have to make in your life you can apply The Big6 to buying a car, you can apply The Big6 process to choosing a college, to choosing a career...

Eleanor's comment and description of The Big6 emphasizes how the structure and organization of the process can help students in divergent areas of their life. By implementing a systematic method, she believes her students will be better prepared to succeed.

Personal Skills

In addition to speaking about cognitive skills in the context of professional life and/or university study, school librarians also referenced metacognition in terms of managing emotions and personal experiences. They explained that knowing how to learn and what makes for an individual's happiness is as important as knowing content or learning a trade. Several teachers emphasized personal fulfillment or being happy with learning outcomes as one of their goals for their students. Naomi illustrated this by describing her own learning experiences sharing:

I'm going to look at my product and you know see if I'm happy with what I've got and I'm happy with it or what I would do differently and um, you know um, I may, I may decide to either, you know, keep it, and um, and do it better next time.

Tessa also opined similarly. She commented that having metacognitive skills will serve students professionally and personally, "I've always said the person who can learn to learn is going to be not only valuable in the marketplace, but also infinitely happier because they can adapt their life to changing circumstances." Hence, librarian participants appear to equate lifelong learning with happiness and personal fulfillment.

Another example comes from JDL. He describes the connection between learning to learn and developing personal management skills that will aid students throughout their lives, saying "…I don't want them just to see our impact on them as just getting through a curriculum, but rather, helping them to develop these important life skills." He goes on to describe how these skills will help students navigate their futures:

I would say that they need to see themselves as their own coach of their own learning skills and that it's a lifelong role... they should want to be as effective as they can be and as flexible and as adaptable as they can be so that they can handle anything that life throws at them.

Ruby emphasized that goal setting and "coming up with a plan to get there" are critical for students, but also remarked on the personal nature of the process. She believes "kids need to understand that for some people it may be easy and they may get there quickly to their goal. For other people it may not be easy, but that doesn't mean that it's not attainable." JDL and Ruby both suggest aspects of metacognition and SRL translate from the classroom to the "real-world"; students who recognize their unique differences and needs will be better able to find their paths forward than students who fail to develop this self-awareness.

Middle school librarian Eleanor discussed the importance of modeling good emotional/personal practices for students in order for them to develop self-management skills. She notes in working with students from diverse homes with differing levels of support, librarians, and teachers more generally, play a vital role in filling gaps parents may be unable to address. Eleanor explains, "It's a process, and kids who've come from homes where they

don't have that, they float around through life and make crazy decisions." Overall, for these librarians, learning and recognizing the process of learning (metacognition and SRL) enhances students' emotional well-being and they hope these skills will continue to impact students lives for the better over the course of their lifetimes.

Finally, Sydney shares in eloquent fashion her perspective on students taking ownership of their learning. She argues students must understand and "own" their learning so that they understand *they* control their success in life. They must receive the help they are given and carry it forward. Sydney explains, "...you have to be willing to receive it and you have to be the one to have pride and ownership over what it is you are learning, you know, because it marks your destiny."

Inter-personal Skills
A third factor from metacognition and SRL identified by the librarians and notable as a lifelong skill was the importance of interpersonal interactions. Naomi spoke of encouraging students to work collaboratively as both a motivator for students to create quality work and also to help students be reflective of the products they build. As she describes below:

> ...if I'm the only who's going to be seeing it, then they'll just do any old thing sometimes. Um, you know if, if it's something that's going to be share and that you know, especially if people in their class are going to see then they tend to be a little bit better work and then get excited to see other people's work too.

Naomi indicates that learning to build a product that others are going to view stimulates students to do their best work; in turn, they then have the opportunity to view and be stimulated by the work of others.

Furthermore, she delved more deeply into the part peer feedback can play in reflection. Naomi has found that by creating situations in which students are formally encouraged to engage in peer feedback, or in a less formal fashion within the library, students can not only provide each other with valuable insights into products, but also gain insight into their own work through this process. She commented:

> I really want them to give each other feedback and then that kind of encourages them, um sometimes we do it explicitly and sometimes just kind of you know, let it happen as it will, um but you know with the um, having conversations with each other about the products, they're going to be reflecting on their own product as well.

Therefore, Naomi believes cooperative learning and peer assessment help students to develop interpersonal skills, which in turn encourages reflection upon product and the process of creating this product.

School librarians also described themselves as conduits for teaching appropriate interpersonal interactions. It might be through activity design as alluded to by Naomi above, or through direct commentary as, for example, Eleanor mentions. She states:

> ...kids will come up to me and another adult talking and they'll just interrupt me and I'm like, I stop and I look at them squarely in the eyes and I say, "Two adult are talking and you interrupted us so you will stand there quietly until we finish." And at every turn, I hold them to those kind of expectations because you know what? If I don't, I may be the only person in their life who does...

Part of the role of teacher librarians is to work with classroom teachers to creatively present subject area content to students. However, as expressed by Eleanor above and other librarians in this study, they feel a responsibility to help their students determine how to live in the world, and an important aspect of getting along in this world is interaction with others. Ruby, high school librarian, summarized this sentiment well when she reflected on what she would say to her students about it:

> What you are learning is valuable and what you have to say about your learning is equally as valuable, that you're part of the global community and you really need to be, you need to know, learn all that you can learn and be able to you know, be a part of society.

Learning content is as important as understanding the research process and how to access information. However, as revealed in these interviews, of equal, if not greater, interest to many of the teacher librarians is that their students understand they are part of a global society. In order to thrive in an international community, they must know themselves as learners (metacognition and SRL) and as human agents. Ruby's sentiments echo the famous words of Paolo Freire who suggested students must know the world before they can understand words they read (Freire & Macedo, 1987).

Significance

Although not a main objective of the initial study (Garrison & Spruce, 2013), the idea of lifelong learning surfaced as something very important to the librarians and the environment they create in their libraries. The school library is meant to be the hub and center of learning in the school, a warm and welcoming place for students to congregate and learn. Considering the pressure of the current high stakes testing climate in the US, the library is even more important in maintaining a culture of lifelong learning within school. Based on the analysis of our interview data, it is evident that developing such a place is an integral and personal goal for these teacher librarians outside of their professional goals surrounding the general curriculum and student achievement. Their perspectives support the role of the school library to promote lifelong learning skills and empower students for their futures in their careers and as responsible members of our global society.

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Appendix A. Interview Guide

Planning:
1. How might you use goal setting in your own learning?

2. How would you encourage your students to use goal setting when planning for a learning task?

3. How would you plan before beginning a learning task?

4. How would you encourage students to plan for a learning task?

5. How would you enhance students' self-motivational beliefs to improve student learning?
      Probe: Self-Efficacy
      Probe: Outcome expectations
      Probe: Task interest
      Probe: Goal orientation

Monitoring:
6. In what ways would you monitor or control your own learning (assert self-control)?
      Probe: Using self-instruction?
      Probe: Using imagery?
      Probe: Using attention focusing?
      Probe: Using specific task strategies?

7. What techniques might you employ to encourage self-control (self-instruction, imagery, attention focusing, specific task strategies) of learning for your students?

8. What are some methods you might employ to monitor your learning process, metacognition, while engaged in a learning task?

9. How would you encourage or implement monitoring of the learning process, metacognition, in your teaching?

10. What are some techniques you might use to track your progress through a learning task?

11. How would you encourage students to track their progress through a learning task?

Evaluation:
12. How might you evaluate your learning after completing a learning task?
      Probe: Self-evaluation
      Probe: Causal attribution

13. What are some activities you might design to encourage student reflection and evaluation after a learning task?

14. How might you determine your satisfaction with a learning outcome after you complete a learning task?

15. How would you encourage students to evaluate their satisfaction with the outcome of a learning task?

16. How would you describe self-regulated learning to your students?

Biographical note

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Robin S. Spruce is currently assistant director of the field based Master in Education program at Old Dominion University in Norfolk, Virginia, USA. She has also taught Reading and Writing Across the Curriculum and Foundations and Assessment of Education. Robin's research interests include classroom community in online and traditional environments, metacognition, and self-regulated learning. Her dissertation was titled, "Teacher Knowledge and Practice of Metacognition and Self-Regulated Learning." It was a mixed methods study in which data culled from questionnaires, interviews, and classroom observations explored teachers declared knowledge of metacognition and self-regulated learning in light of their classroom practice.