Librarians' Leadership Efficacy, Training, and School Involvement: Collaboration between Teachers and School Librarians in Israel

Ruth Ash-Argyle
Leo Baeck Education Center, Israel

Snunith Shoham
Bar Ilan University, Israel

This paper analyzes the correlation between the type of training received by librarians, their leadership efficacy and their involvement in the life of the school, and patterns of teacher-librarian collaboration (TLC) in Israel. The study was based on 291 questionnaires answered by school librarians, teachers, and principals of public schools in Israel. The research findings indicate that leadership ability is predictive of an advanced pattern of teacher-librarian collaboration (TLC). Similarly, the perceived level of advanced cooperation was lower among librarians who do not have a teaching license, than for either teacher-librarians or librarians with a teaching license who work only in the library. The teacher-librarians were perceived to have the highest level of pedagogical and social involvement, and therefore the chances that they will maintain an advanced pattern of TLC are the higher.

Introduction
This paper is based on research conducted in Israel in 2010. It is a qualitative study based on a questionnaire distributed to school librarians, principals and teachers in Israeli Jewish public schools. The goal of the study was to examine the degree of connection, if any, between the leadership efficacy of the librarians, as perceived by themselves, teachers and principals, and their involvement in the life of the school and patterns of teacher-librarian collaboration (TLC) in Israel. We also analyze the correlation between the type of training the librarians received, their leadership efficacy, and TLC.

This paper contributes to a renewed examination of the required competencies and the cultivation of leadership skills in the education of effective school librarians. It also sheds light on the areas of involvement necessary for development of best practice work patterns that are an important factor in building fruitful collaboration between librarians and teachers.
**Literature Review**

**Teacher-Librarian Collaboration (TLC)**

Collaboration is defined as a relationship system based on shared goals, a shared vision, and a climate of trust and respect where each partner has a defined role. The partners share the leadership, risk, control and resources. Usually, the work relationship between them lasts for a relatively long period of time (Callison, 1999).

The importance of TLC has long been recognized. As early as 1941, school librarians in the United States were expected to be familiar with the sources teachers needed for teaching, to coordinate with them and integrate them in the school's plans. Standards formulated by the American Library Association in 1945 emphasized the close working relationship between librarians and teachers (Douglas, 1945). In 1960, the standards of the American Association of School Librarians were updated with a focus on collaboration between teachers and librarians, in order to encourage excellence, and provide teachers and students with the resources they required. In the 1980s, the clear connection between increasing the collaboration between teachers and librarians, and an improvement in students’ achievements was recognized.

In *Empowering Learners*, (American Association of School Librarians [AASL], 2009) the role of the school librarian is based on the belief that the librarian is central to teaching and learning in school. TLC was a central issue in the second edition of *Information Power* (AASL, 1998). It emphasized the involvement of librarians in the educational process, while the newer *Empowering Learners* places more emphasis on collaboration and team-teaching by the librarian and a teacher as a way to achieve the goal of improving students’ achievements (Loertscher, 2009).

In the 21st century educational environment, the librarian is required to intensify collaboration, especially with classroom teachers. Predictions of future developments in the role of school librarians emphasize the need to be a partner in teaching. The librarian is required to build new collaborations and connect the school resource center to a broad educational community through cooperative programs even with organizations outside of the school (AASL, 2009).

Collaboration that focuses on the cooperative work of teachers and librarian in the planning, teaching and evaluation of students is a revolutionary change in the traditional role of the librarian. It represents the creation of a partnership to which each side contributes its expertise. Students are the main beneficiaries (Doll, 2005).

The model of Teacher-Librarian Collaboration (TLC) described by Montiel-Overall (2005) refines and develops the taxonomy of Loertscher (2000). It outlines four principle models, from lowest to highest: Model A: Coordination; Model B: Cooperation; Model C: Integrated instruction; and Model D: Integrated curriculum.

For Model A, it is necessary to have a low level of trust, some friendliness, and minimal communications. Model B requires moderate communications, collegiality, and a propensity for mutuality and reciprocity. In Model C, a high level of trust, willingness to share, respect, and acceptance of the other as an equal are necessary, in addition to good, frequent communications. For Model D, everything needed for Model C is required, but the communications must be excellent. Model A exists in many schools, in which the teachers work autonomously, and have very little contact with the library resource center for instructional purposes. Models C and D describe a high level of collaboration and require partners who are skilled listeners and open to new ideas. This is a partnership between equals in which each values the expertise of the other, and the joint tasks are a source of inspiration for the partnership (Montiel-Overall, 2005; 2006).

**Involvement in the Life of the School**

There are three aspects of involvement in the life of a school: pedagogical, social and communicative.

**Pedagogical involvement.** The research literature emphasizes the pedagogical aspect of the school librarian’s involvement in the school. There is also striking relationship between involvement and the tendency towards TLC. Teacher-librarians in the 21st century are
committed to being involved in pedagogy and being perceived as leaders in teaching. Teacher-librarians who show involvement and leadership in school are also the ones with whom teachers are more willing to cooperate (Branch & Oberg, 2001).

Montiel-Overall (2008) pointed out the direct connection between involvement and collaboration. She notes that the goal of 21st school librarianship in the US is more active involvement of librarians in students’ learning process. Involvement is achieved through TLC. Donham (2005) emphasized the pedagogical aspect and importance of expanding the role of librarians in learning and teaching. Librarians must increase their involvement by, for example, volunteering to serve on various school committees. Librarians’ involvement in decision-making groups within the school is an important step towards influence and leadership. In a study conducted in Ohio, Ross and Kuhlthau (2004) found that librarians influence students’ learning process because they function both as experts in acquiring information literacy skills and as leading partners in teaching. The active involvement of librarians in developing curriculum contributed to achieving the school’s goals and improving the students’ learning.

Although the school librarian is expected to be involved in issues of teaching and take an active part in professional committees dealing with curriculum, there seems to be a large gap between the desired situation and the actual one. In her study, Pickard (1993) found that, although most librarians (77%) attributed a high degree of importance to participating in the school’s curriculum committee, only 14% indicated that they actually do participate in the committee.

Studies carried out in Israel found that current state of librarians’ involvement in the school is not particularly encouraging. The pedagogical involvement of librarians was reviewed by Dotan and Aharony (2008) in the context if information literacy programs. They found that librarians’ involvement in the information literacy programs in schools barely reached the medium level. Anzenberg and Yitzhaki (2008) also found that librarians were only marginally involved in the school-wide programs, either educationally or socially.

**Social involvement.** Research literature on education discusses social involvement in the context of teachers and teaching teams. There are references to the importance of fostering the involvement of teachers in school and, particularly, to nurturing the social aspect of the teachers’ room which contributes a good working relationship between teachers.

Ben-Peretz and Schonmann (2000) studied the culture of teachers’ room in schools, and found that, in schools where there is special emphasis on cultivating the social side of the teachers’ room, students’ achievement are also higher. When teachers interact in the teachers’ room, their interpersonal relationships include sharing experiences with colleagues, and reminiscing about significant school events that make up the ethos of the school.

Others found that teachers’ involvement in the school added to their feeling of control and optimism, and helped prevent burn-out. A school climate that encourages involvement, and partnership in decision-making and policy-setting enhances teachers’ motivation and desire to contribute. Increasing teachers’ participation in decision-making and creating partnerships and involvement can be achieved through using various activities designed specifically to forge group cohesion such as trips (Friedman & Lotan, 1993; Teverya, 2001).

**Communication within the school.** Farmer’s (2006) study of 60 school library programs in California described the factors found to contribute to student academic achievement, among which was the factor of collaborative planning and instruction. Communication with the various members of the school faculty, particularly with the principal, was found to be one of the factors influencing, directly and indirectly, improvements in the academic achievement of the students. This finding stresses the importance for librarians to invest in communication with the library’s service community and, in particular, with the school principal. Farmer’s study reinforces the importance of administrative support. School librarians need to communicate and work successfully with administrators, by focusing on
those principles which form the basis of good library media programs that positively correlate with student academic achievement.

Several earlier studies on the different perspectives of school administrators and librarians recommend effective communication between librarians and the administrators (e.g., Dorrell & Lawson, 1995; Edwards, 1989; Lau, 2002). The key factor in a school, with the most decisive impact on the library’s role and the librarian’s status, is the principal. As the person-in-charge and leader of the professional staff, he/she can empower the librarian through participation in the work of various committees and task forces in the school and in regional and district activities (Hoy & Miskel, 2001). The principal influences the frequency of library use since he/she has the power to encourage cooperation between teachers and librarians. In schools where the principal fosters TLC, the teachers are more likely to collaborate with librarians (Haycock, 1999; Oberg, 1997). The influence of principals is reflected in budgeting, in staffing, and in organizational decisions that affect class schedules and librarians’ work hours (Hartzell, 2002; Haycock 1999; Oberg, Hay, & Henri, 1999).

Despite the importance of the principal’s support, school librarians often complain that their principal has little understanding of their work. Principals lack knowledge and understanding about the importance of the library’s contribution to teaching and learning. As a result, libraries are not funded properly and suffer from cuts in personnel (Klais & Bugher, 2010). Many principals are not sufficiently aware of the teaching role of librarians and have low expectations of librarians and their ability to contribute to learning processes (Kaplan, 2006).

Little of the principals’ information about the library and its role in the school comes from their professional training. Rather it is based on their cumulative, personal experience as teachers and even as students. Principals develop their expectations for the library on the basis of their positive or negative acquaintance with the school librarian (Church, 2008). Therefore, high-quality, effective communications between the librarian and the principal and teachers is one of the most influential factors on the librarians’ success at work, while a problematic relationship between the librarian and teachers or between the librarian and the school’s administration is an obstacle to realizing the library’s goals (Anzenberg & Yitzhaki, 2006).

Previous research literature focused on the pedagogical aspect of librarians’ involvement in school and the social aspect is discussed only for teachers. Clearly, the issue of communication with the principal and other school officials is central. This study examines both librarian’s social involvement and communications within the school, using a questionnaire developed especially for this purpose.

**Problems with TLC and Librarians’ Involvement in the School**

Many problems cast a pall on creating collaboration between teachers and librarians and on increasing their involvement in school life. Principals and teachers do not consider librarians genuine partners in the educational process. A certain disconnect is discernable in communications: librarians lack awareness about the principals’ and teachers’ expectations of them, while teachers and principals are unaware of the work done in the library resource center. Difficulties arising from poor physical conditions, personality issues of the librarians, and the lack of appropriate professional training in sophisticated, new information technologies reduce the chances for collaboration between teachers and librarians (Anzenberg & Yitzhaki, 2006, 2008). Another difficulty stems from librarians’ work-style. They are isolated in the library-resource center and more involved in the community of librarians than in the community of teachers; they often do not think about moving beyond their professional work group (Hartzell, 1997).

**Leadership in the Library Resource Center and Leadership Efficacy**

In the scholarly literature of the last decade, we can discern increasing awareness of the importance of leadership in librarianship in general and especially in schools. Schreiber and Shannon (2001) point out the importance of leadership development in the field of librarianship. Branch and Oberg (2001) emphasize the leadership role of the teacher-librarian in teaching and guidance. Lyders and Wilson (2001), in a handbook for school librarians, list traits needed for leadership in school library resource centers: vision, setting goals,
communication, collaboration on curricula, working according to standards, and continuous assessment of library programs.

The leadership qualities that are important to school librarians are ones that contribute to change in their school. A connection has been found between the success of school librarians on the job and their visionary leadership. The personal traits that were found to be prominent among successful school librarians were: leadership ability; ability to build a vision and connect it to the agenda of the school’s principal; and the ability to successfully work with teachers and students. Successful librarians were also risk-takers and leaders who led a process of change and improvement in the school (Castiglione, 2006; Donham, 2005; Shannon, 2002).

Standards and guidelines of the associations of school libraries in Australia, Canada and the United States encourage the school librarian to demonstrate leadership, serve as an intermediary, be an agent for change, be pro-active, and present a vision (see, for example, Canadian Association for School Libraries, 1997; School Library Association of South Australia, 2003). In Information Power (AASL, 1998), the librarian is explicitly defined as a leader in curriculum, instruction and technology who collaborates with all members of the community of learners while developing student-centered library programs.

Olson and Singer (2004) discuss the importance of effective leadership in the dynamic environment of the library. They note that collaboration is one of three capabilities leaders need and a key to leadership. They claim that collaboration is finally being given its proper place among processes that lead to achieving higher performance. Adopting a collaborative way of thinking is critical for leaders. Librarians should ask themselves with whom must they collaborate in order to promote their vision of the library. Furthermore, librarians also should consider how, as leaders, they are able to facilitate collaboration with their colleagues, and what can they do to create reasons for people to work together.

**Leadership Self-Efficacy**

Self-efficacy refers to the individual’s belief in his or her abilities or skills to perform certain tasks. Self-efficacy is a subjective concept and does not refer to the actual performance, but rather to one’s self-evaluation of his/her ability to perform (Bandura, 1986). This self-evaluation is not a constant state and can change at different times and in different situations. The concept of self-efficacy is quite wide and encompasses many skills, abilities and tasks. Bandura (1977) himself called for the use of tailor-made self-efficacy scales for specific domains or behaviors which are more predictive for those domains, rather than relying on general self-efficacy scales.

Leadership self-efficacy (LSE) is defined as an individual’s judgment regarding his/her own competence to lead successfully. LSE refers to leadership in the sense of being able to determine the future direction of a group, being able to build relationships that create employee commitment to the cause, and being able to work together to overcome obstacles that hinder change (Paglis, 1999).

The LSE (Leadership self-efficacy) questionnaire constructed by Paglis (1999) consists of twelve statements. The respondents reply based on their confidence in their ability to perform each of the leadership tasks, on a scale ranging from 0% to 100%. The current study used this questionnaire after making adjustments to adapt it for Israeli schools.

The LSE model is unique because most theories deal with the behavior of the leader and study different leadership styles; the starting point is that the individual has already chosen to lead. The LSE model precedes these stages and focuses primarily on the process that occurs before deciding to be a leader. The LSE model does not presume to predict what specific behaviors the individual chooses, but should affect the individual’s decision to accept leadership or avoid a leadership role.

**Developing Leadership among School Librarians**

Vansickle (2000) identified a problem with the way US students of library science who were planning to be school librarians perceived of the role of leadership in their jobs. Most of the students considered themselves to be support personnel, not leaders. Since the leadership of the school librarian is the most important factor in creating a worthwhile and effective
program in library resource center, Vansickle believed it is necessary to include leadership development in the professional training of librarians.

An unusual example of leadership development for school librarians was instituted in the Florida State University School of Library and Information Studies. As part of a leadership project designed to train school librarians for the 21st century, the LEAD project was developed in 2005 in response to a critical shortage of school librarians and the need to train them in leadership skills. In 2006, 30 leading teachers from across Florida were chosen to participate in the leadership program as part of their studies towards a master’s degree. The students learned many skills that made it possible for them to demonstrate conspicuous leadership behaviors, such as: encouraging change through collaboration; defining goals; creating a shared vision; using technology to empower the community; and teaching the information skills critical for success the 21st century (Everhart & Dresang, 2007).

Smith (2010) studied several groups of teachers studying in a master’s level leadership development program. His findings indicated that including a leadership program in the training of school librarians was an important factor in developing their leadership skills. Leadership skills should be integrated into the curriculum for training librarians. Moreover, it is desirable to hire, from the outset, people with leadership potential. Librarianship should no longer be considered an easy job suitable for teachers anticipating retirement.

Research Assumptions
This study was based on the following research assumptions:
1. A positive relationship will be found between the pattern of teacher-librarian collaboration (TLC) and leadership self-efficacy (LSE), so that the higher the school librarian’s LSE, the more advanced the TLC pattern will be.
2. A positive relationship will be found between the pattern of TLC and the librarians’ leadership efficacy as perceived by teachers and principals (LE-T and LE-P respectively), so that the higher the perceived leadership efficacy, the more advanced the TLC pattern will be, as perceived by teachers and principals (TLC-T and TLC-P, respectively).
3. A positive relationship will be found between the school librarian’s involvement in the life of the school (“school involvement”), as perceived by librarians, teachers and principals, and the pattern of TLC, so that the more the librarian is perceived as being involved in the school, the more advanced the TLC pattern will be.
4. Differences in perceived leadership efficacy, perceived involvement in school’s life and the pattern of TLC will reflect the different types of training that the librarians received.

Methodology
Sample
The sample included 170 teachers, 88 librarians and 33 principals, for a total of 291 participants. Of the librarians in the sample, 76.5% were employed in secondary schools, and 23.5% in elementary schools. This population of librarians was divided into 48.2% without training in education (“librarian without a teaching license”), 37.3% with a teaching license who work only in the library (“librarian with a teaching license”), and 14.5% teacher-librarians who also teach some academic subjects in a self-contained classroom in addition to their role in the library resource center. Of the teachers in the sample, 70.1% were employed in secondary education.

Research Tools
The questionnaires used to gather the data were:
1. A questionnaire about the collaboration between the teachers and librarians (TLC).
2. A questionnaire regarding the librarian’s leadership self-efficacy (LSE).
3. A questionnaire regarding the librarian’s leadership efficacy, as perceived by teachers and principals (LE-T/LE-P).
4. A questionnaire on the librarians’ school involvement.
5. A general section of questions on background variables, including age, position, type of training, type of school and level of education.

The statements in the TLC questionnaire were based on the taxonomy of Loertscher (1988, 2000) and statements from the TLC questionnaire of Monteil-Overall (2005), adapted to Israeli schools. The questionnaire included ten statements, divided into three groups according to pattern of collaboration: advanced, traditional and minimal; four items related to advanced collaboration ($\alpha=0.91$) and three items related to traditional collaboration ($\alpha=0.168$). One item was not analyzed because of low internal consistency. Two items related to a minimal-to-nonexistent level of collaboration ($\alpha=0.68$). The participants were asked to rank their agreement with each statement on a Likert scale from 1 to 5 (1=does not agree at all; 5=agrees very strongly.)

The LSE questionnaire was based on statements from the questionnaire by Paglis (1999), adapted for the environment of a library resource center. The questionnaire included 12 statements divided into three groups by type of efficacy; four questions regarded efficacy in giving direction ($\alpha=0.92$), four statements regarded efficacy for creating employee commitment ($\alpha=0.92$), and four statements regarded efficacy for overcoming obstacles ($\alpha=0.86$). Librarians were asked to rank their agreement with each statement regarding themselves on the same Likert scale as above.

The LE-T/LE-P questionnaire was designed to examine the perception of teachers and principals regarding the leadership efficacy of school librarians. It was the same as the questionnaire distributed to the librarians but worded in the third person.

The questionnaire about librarians’ school involvement was intended to examine the positions of all three groups of participants regarding the non-dependent variable, the librarian’s involvement in the life of the school. Constructed especially for this study, the question included 16 statements, designed specifically to examine the extent to which librarians perceive themselves or are perceived by teachers and principals as being involved in the school. It was formulated to be consistent with the reality in Israeli schools and covered three types of involvement: social, pedagogical and communications within the school. There were four statements relating to social involvement ($\alpha=0.89$), six statements related to pedagogical involvement ($\alpha=0.90$), and five statements regarding communications ($\alpha=0.90$). Responses to the questions marked on the same Likert scale as above.

**Process**

The questionnaires were distributed by sending requests to the e-mail addresses of librarians, teachers and principals. In addition, an online forum was used to ask school librarians to distribute the questionnaire to teachers and the principal in their school. Furthermore, questionnaires were distributed via in-service courses for teachers at two colleges and one university. In one case, a personal meeting was scheduled with the principal in order to request that he complete the questionnaire. A total of 291 questionnaires were processed and analyzed: of these, 197 were online and 94 were printed.

**Results**

Data collected from the sample indicates that the population of school librarians in Israel is relatively old. A majority of librarians responding (58.6%) were over 50. None of the school librarians were in the 20-29 age range.

Most of the respondents (95.2%) were women. Nearly half (48.2%) of the librarians had no training in education, 31 had teaching licenses but work only in the library (37.3%). Only 12 had double certification as teacher-librarians (14.5%). Most of the librarians were certified in library or information science (73.3%); one-quarter (26.7%) were not. Most of the teacher-librarians worked in elementary schools, as did one-third of the librarians with a
teaching license, and a few (10.5%) lacked any training in education. Interestingly, most of the latter (78.9%) worked in secondary schools.

Among the librarians, we found a significant correlation between academic level and the type of training as a librarian ($F=25.16$, df=4, $p<0.001$). Most of the teacher-librarians (66.7%) have master’s degrees while most of the librarians with a teaching license (77.4%) have only a bachelor’s degree. The librarians without a teaching license were divided almost evenly, with approximately one-third having no academic education, approximately one-third with a bachelor’s degree, and approximately one-third with a master’s. It is evident that the teacher-librarians are the most highly-educated group among the librarians. More than half (54.5%) of the teacher-librarians had 20 or more years of teaching experience, meaning that many had come to the library with years of professional classroom experience.

**How School Librarians, Teachers and Principals Perceive TLC**

A significant difference was found between how teachers and principals, as compared to librarians, perceived the advanced pattern of collaboration ($F=5.78$, df=2, 203, $p<0.001$) and the minimal pattern of collaboration ($F=5.78$, df=2.203, $p<0.001$). Teachers had the lowest perception of advanced collaboration level while principals had the highest. The librarians were in the middle. Minimal collaboration was the source of the significant gap between teachers and principals, and librarians. Teachers tended to agree more strongly that the existing level of collaboration was minimal.

**Leadership Efficacy and TLC Patterns**

According to the first research assumption, a positive correlation will be found between teacher-librarian collaboration (TLC) and the librarians’ leadership self-efficacy (LSE), so that the higher the school librarian’s LSE, the more advanced the TLC will be. In order to test the correlation between the LSE of the librarian and the three patterns of TLC, nine Pearson correlations were run.

Table 1 shows a significant, positive correlation among the three dimensions of the librarian’s LSE (leadership self-efficacy) and TLC. The higher the librarian’s LSE in all three dimensions, the more the librarian was inclined to advanced TLC. The more the librarian perceived him/herself as able to set a direction, the more he/she was inclined to traditional TLC, while the librarian who perceived him/herself as less capable of creating employee commitment and overcoming obstacles was inclined to minimal TLC.

According to the second research assumption, a positive correlation will be found between TLC and the librarians’ leadership efficacy as perceived by teachers and principals (LE-T and LE-P), so that the higher the perceived leadership efficacy, the more advanced the TLC-T and TLC-P (TLC as perceived by teachers and principals, respectively). In order to test these correlations, nine Pearson correlations were run. Table 2 shows the strength of the correlations and their significance.

Table 2 shows a significant, positive correlation among the three dimensions of the librarians’ leadership efficacy and advanced TLC-T (TLC as perceived by teachers). The higher the TLC-T, in each of the three dimensions, the more teachers perceive the librarian as inclined toward advanced collaboration. A significant, negative correlation was found between the three dimensions of the librarian’s LE-T and minimal TLC. The lower the LE-T, in each of the three dimensions, the more teachers perceive the librarian as inclined toward minimal collaboration. The librarian’s TLC-T did not have an influence on the traditional collaboration pattern.

**Table 1. Strength of Correlation between the Librarian’s LSE and Collaboration (TLC) Pattern**

<table>
<thead>
<tr>
<th></th>
<th>LSE</th>
<th>Advanced TLC</th>
<th>Traditional TLC</th>
<th>Minimal TLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficacy to Set Direction</td>
<td>0.35***</td>
<td>0.24*</td>
<td>0.09</td>
<td></td>
</tr>
<tr>
<td>Efficacy to Create Commitment</td>
<td>0.60***</td>
<td>0.11</td>
<td>-0.49**</td>
<td></td>
</tr>
<tr>
<td>Efficacy to Overcome Obstacles</td>
<td>0.44***</td>
<td>0</td>
<td>-0.40**</td>
<td></td>
</tr>
</tbody>
</table>

* $p < 0.05$. ** $p < 0.001$. ** ** $p < 0.001$. **
Table 2.  Strength of Correlation between the Librarian’s LE-T and Collaboration (TLC) pattern

<table>
<thead>
<tr>
<th>LE-T</th>
<th>Advanced TLC</th>
<th>Traditional TLC</th>
<th>Minimal TLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficacy to set direction</td>
<td>.414</td>
<td>-.014</td>
<td>-.468</td>
</tr>
<tr>
<td>Efficacy to create commitment</td>
<td>.413</td>
<td>.001</td>
<td>-.426</td>
</tr>
<tr>
<td>Efficacy to overcome obstacles</td>
<td>.427</td>
<td>.051</td>
<td>-.386</td>
</tr>
</tbody>
</table>

* *p < 0.01.

In order to test the correlation between the various dimensions of librarians’ LE-P (librarians’ leadership efficacy as perceived by principals), and the patterns of TLC, nine Pearson correlations were run. Table 3 shows the strength of the correlations and their significance.

Table 3. Strength of Correlation between Librarian’s LE-P and Collaboration (TLC) Pattern

<table>
<thead>
<tr>
<th>LE-P</th>
<th>Advanced TLC</th>
<th>Traditional TLC</th>
<th>Minimal TLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficacy to Set Direction</td>
<td>.425</td>
<td>-.083</td>
<td>-.440</td>
</tr>
<tr>
<td>Efficacy to Create Commitment</td>
<td>.483</td>
<td>-.175</td>
<td>-.576</td>
</tr>
<tr>
<td>Efficacy to Overcome Obstacles</td>
<td>.231</td>
<td>-.120</td>
<td>-.387</td>
</tr>
</tbody>
</table>

* *p<0.05. ** p<0.01.

Study of Table 3 reveals a significant, positive correlation between efficacy to create employee commitments, as perceived by principals, and advanced TLC, so that the higher the librarians’ perceived efficacy in this dimension, the greater the inclination to advanced TLC. There is a negative correlation between the three dimensions of the librarian’s LE-P, and minimal collaboration. No correlation was found between the librarian’s LE-P, and traditional collaboration. Furthermore, no correlation was found between efficacy for overcoming obstacles and advanced TLC.

**Librarians’ Training**

**Training and LSE.** According to the fourth research assumption, differences in perceived leadership efficacy will reflect the different types of training that the librarians received. In order to test the difference between the three types of training that librarians received (with and without training in education and teacher-librarians) and the three dimensions of LSE (leadership self-efficacy), a multivariate analysis of variance (MANOVA) was run. The dependent variables were the three LSE dimensions (ability to give direction, to create employee commitment, and to overcome obstacles). The MANOVA analysis was not significant (F=0.29, df=2.77, ns). Table 4 presents the averages and standard deviations between the three types of training and the three dimensions of LSE. It shows no significant difference between the types of librarians, in any dimension of LSE: direction-setting (F=0.31, df=2.77, ns), ability to create employee commitment (F=1.61, df=2.67, ns), and ability to overcome obstacles (F=0.29, df=2.77, ns).
### Table 4. Means (M) and Standard Deviations (SD) for Librarians’ Training and LSE Dimensions

<table>
<thead>
<tr>
<th>LSE</th>
<th>Librarian’s Training</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to Set Direction</td>
<td>No Teaching License</td>
<td>4.29</td>
<td>.66</td>
</tr>
<tr>
<td></td>
<td>Teaching License</td>
<td>4.22</td>
<td>.72</td>
</tr>
<tr>
<td></td>
<td>Teacher-Librarian</td>
<td>4.40</td>
<td>.59</td>
</tr>
<tr>
<td></td>
<td>All Training</td>
<td>4.28</td>
<td>.67</td>
</tr>
<tr>
<td>Ability to Create Employee Commitment</td>
<td>No Teaching License</td>
<td>3.82</td>
<td>.92</td>
</tr>
<tr>
<td></td>
<td>Teaching License</td>
<td>3.91</td>
<td>.65</td>
</tr>
<tr>
<td></td>
<td>Teacher-Librarian</td>
<td>4.29</td>
<td>.63</td>
</tr>
<tr>
<td></td>
<td>All Training</td>
<td>3.93</td>
<td>.80</td>
</tr>
<tr>
<td>Ability to Overcome Obstacles</td>
<td>No Teaching License</td>
<td>3.44</td>
<td>.95</td>
</tr>
<tr>
<td></td>
<td>Teaching License</td>
<td>3.59</td>
<td>.80</td>
</tr>
<tr>
<td></td>
<td>Teacher-Librarian</td>
<td>3.58</td>
<td>.77</td>
</tr>
<tr>
<td></td>
<td>All Training</td>
<td>3.52</td>
<td>.86</td>
</tr>
</tbody>
</table>

**Training and librarians’ perception of TLC.** According to the fourth research assumption, the difference in librarians’ perception of the TLC pattern will reflect the type of training that the librarians received. The findings show a significant difference in perception of the TLC pattern between librarian with different types of training (F=6.38, df=2, 203, p<0.001). Librarians who do not have any training in education have the lowest perception of advanced TLC, compared to librarians with a teaching license or teacher-librarians.

**Librarians’ Involvement in the School**

**Involvement and TLC.** According to the third research assumption, a positive correlation will be found between the school librarian’s school involvement, as perceived by teachers, and TLC, so that the more the librarian is perceived as being involved in the school, the more advanced the TLC pattern will be. In order to test this correlation, nine Pearson correlations were run. Table 5 presents the strength and significance of the correlations.

### Table 5. Strength of Correlation between Teacher Perceived Librarian School Involvement and Collaboration (TLC) Patterns

<table>
<thead>
<tr>
<th>Teacher Perceived Involvement</th>
<th>Advanced TLC</th>
<th>Traditional TLC</th>
<th>Minimal TLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social</td>
<td>.343*</td>
<td>.063</td>
<td>-.294*</td>
</tr>
<tr>
<td>Pedagogical</td>
<td>.460**</td>
<td>-.003</td>
<td>-.405**</td>
</tr>
<tr>
<td>Communications within the School</td>
<td>.441**</td>
<td>.075</td>
<td>-.474**</td>
</tr>
</tbody>
</table>

* p < 0.05. ** p < 0.01.

Table 5 illustrates a significant, positive correlation between each dimension of perceived involvement and the advanced pattern of TLC. The greater the librarians’ school involvement, as perceived by teachers, the more advanced the TLC. There is also a negative connection between perceived involvement and minimal TLC, so that the less involved the librarian, as perceived by teachers, the stronger the inclination to minimal TLC. No significant correlations were found with the traditional pattern of TLC.

In order to test for a difference between the three types of training and the three dimensions of involvement as perceived by teachers, a MANOVA analysis of variance was run. The dependent variables are the three dimensions of perceived involvement (social, pedagogical and communications). The MANOVA analysis was significant (F=8.05, df=6,190, p<0.001). Table 6 shows the averages and standard deviations between the three types of training for librarians and the three dimensions of involvement, as perceived by teachers.
Table 6. Means (M) and Standard Deviations (SD) for Training and Teacher Perceived Librarian Involvement

<table>
<thead>
<tr>
<th>Teacher Perceived Involvement</th>
<th>Librarian’s Training</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social</td>
<td>No Teaching License</td>
<td>3.30</td>
<td>1.24</td>
</tr>
<tr>
<td></td>
<td>Teaching License</td>
<td>3.44</td>
<td>1.19</td>
</tr>
<tr>
<td></td>
<td>Teacher-Librarian</td>
<td>4.22</td>
<td>.70</td>
</tr>
<tr>
<td></td>
<td>All Training</td>
<td>3.76</td>
<td>1.10</td>
</tr>
<tr>
<td>Pedagogical</td>
<td>No Teaching License</td>
<td>2.55</td>
<td>1.04</td>
</tr>
<tr>
<td></td>
<td>Teaching License</td>
<td>3.15</td>
<td>1.11</td>
</tr>
<tr>
<td></td>
<td>Teacher-Librarian</td>
<td>4.05</td>
<td>.73</td>
</tr>
<tr>
<td></td>
<td>All Training</td>
<td>3.35</td>
<td>1.14</td>
</tr>
<tr>
<td>Communications within the School</td>
<td>No Teaching License</td>
<td>2.63</td>
<td>1.17</td>
</tr>
<tr>
<td></td>
<td>Teaching License</td>
<td>3.17</td>
<td>1.18</td>
</tr>
<tr>
<td></td>
<td>Teacher-Librarian</td>
<td>3.66</td>
<td>1.04</td>
</tr>
<tr>
<td></td>
<td>All Training</td>
<td>3.20</td>
<td>1.20</td>
</tr>
</tbody>
</table>

In Table 6, we see that there is a significant difference (F=9.54, df=2.99, p<0.001) between the librarian’s involvement as perceived by teachers and the three types of training. The teacher-librarians were perceived as being the most involved. No difference was found in the perceived involvement of the librarians with and without a teaching license.

In addition, there is a significant difference (F=28.24, df=2.99, p<0.001) between the perceived pedagogical involvement of teacher-librarians, who teachers perceive as being the most involved, followed by librarians with a teaching license. Teachers perceive librarians without a teaching license as having the least pedagogical involvement.

A significant difference (F=8.93, df=2.96, p<0.001) was also found for communications within the school, with teachers perceiving the highest level of communication with teacher-librarians, compared to librarians without a teaching license.

According to the third research assumption, a positive correlation will be found between the school librarian’s school involvement, as perceived by principals, and the pattern of TLC, so that the greater the librarians’ perceived school involvement, the more advanced the TLC pattern. In order to test this correlation, nine Pearson correlations were run. Table 7 presents the strength and significance of the correlations. The MANOVA analysis was also significant (F=2.57, df=6.50, p<0.05).

Table 7. Strength of Correlation between Principal Perceived Librarian Involvement and Collaboration (TLC) Pattern

<table>
<thead>
<tr>
<th>Principal Perceived Involvement</th>
<th>Advanced TLC</th>
<th>Traditional TLC</th>
<th>Minimal TLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social</td>
<td>.715</td>
<td>-.082</td>
<td>-.631</td>
</tr>
<tr>
<td>Pedagogical</td>
<td>.752**</td>
<td>-.226</td>
<td>-.541**</td>
</tr>
<tr>
<td>Communications within the School</td>
<td>.676**</td>
<td>-.170</td>
<td>-.586**</td>
</tr>
</tbody>
</table>

* p<0.05. ** p<0.01.

Study of Table 7 reveals a strong significant, positive correlation between each dimension of involvement, as perceived by principals, and advanced TLC, so that the higher the involvement, the greater the tendency towards advanced TLC. There is also a strong negative correlation between the three dimensions of involvement, as perceived by principals, and minimal TLC; the less the involvement; the greater the tendency towards minimal TLC. No significant correlations were found with traditional TLC.

In order to test for a difference between the three types of training and the three dimensions of involvement as perceived by principals, a MANOVA analysis of variance was run. The dependent variables are the three dimensions of perceived involvement. The MANOVA results were significant (F=3.84, df=6.154, p<0.001).
The data displayed in Table 8 shows that a significant difference was found between the three types of training and the dimensions of involvement, as perceived by principals (F=3.71, df=2.26, p<0.05). Principals perceive teacher-librarians as being the more involved than librarians without a teaching license. The perceived involvement of librarians with a teaching license is between that of the other two groups.

A significant difference was found in the perceived involvement in pedagogy (F=8.73, df=2.26, p<0.001) with teacher-librarians being perceived as more involved than librarians in the other two groups, librarians with and without a teaching license. No significant difference in communications within the school was found for the three groups of librarians (F=2.57, df=2.26, ns).

According to the third research assumption, a positive correlation will be found between the school librarian’s own perceived school involvement, and the pattern of TLC, so that the more the librarians perceive themselves as being involved in the school, the more advanced the TLC pattern will be. In order to test this correlation, nine Pearson correlations were run. Table 9 presents the strength and significance of the correlation between the three dimensions of school involvement and the three patterns of TLC.

Table 9. Strength of Correlation between Librarian Self-Perceived Involvement and Collaboration (TLC) Pattern

<table>
<thead>
<tr>
<th>Self-Perceived Involvement</th>
<th>Advanced TLC</th>
<th>Traditional TLC</th>
<th>Minimal TLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social</td>
<td>.382</td>
<td>-.007</td>
<td>-.440</td>
</tr>
<tr>
<td>Pedagogical</td>
<td>.454*</td>
<td>-.077</td>
<td>-.357</td>
</tr>
<tr>
<td>Communications Within the School</td>
<td>.453*</td>
<td>-.143</td>
<td>-.391</td>
</tr>
</tbody>
</table>

* p < 0.01

Table 9 shows a significant, positive correlation between the three dimensions of involvement and the three patterns of TLC. The more a librarian perceives himself as involved in the school (all three dimensions), the more he tends towards advanced TLC. A negative correlation was found between involvement and TLC. The less a librarian perceives himself as involved in the school, the more he tends towards minimal TLC. No significant correlations were found between self-perceived involvement and traditional TLC.

To test for a difference between the three types of training and the three dimensions of involvement, a MANOVA analysis of variance was run. The dependent variables are the three dimensions of involvement in school (social, pedagogical and communications). The MANOVA analysis is significant (F=3.84, df=6,154, p< 0.001).
Table 10. Means (M) and Standard Deviations (SD) for Librarians’ Training and Self-Perceived School Involvement

<table>
<thead>
<tr>
<th>Self-Perceived School Involvement</th>
<th>Librarian’s Training</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social</td>
<td>No Teaching License</td>
<td>3.94</td>
<td>0.85</td>
</tr>
<tr>
<td></td>
<td>Teaching License</td>
<td>3.89</td>
<td>0.86</td>
</tr>
<tr>
<td></td>
<td>Teacher-Librarian</td>
<td>4.52</td>
<td>0.75</td>
</tr>
<tr>
<td></td>
<td>All Training</td>
<td>4.00</td>
<td>0.86</td>
</tr>
<tr>
<td>Pedagogical</td>
<td>No Teaching License</td>
<td>3.06</td>
<td>0.90</td>
</tr>
<tr>
<td></td>
<td>Teaching License</td>
<td>3.24</td>
<td>0.82</td>
</tr>
<tr>
<td></td>
<td>Teacher-Librarian</td>
<td>4.25</td>
<td>0.83</td>
</tr>
<tr>
<td></td>
<td>All Training</td>
<td>3.30</td>
<td>0.94</td>
</tr>
<tr>
<td>Communications within the School</td>
<td>No Teaching License</td>
<td>3.545</td>
<td>0.99</td>
</tr>
<tr>
<td></td>
<td>Teaching License</td>
<td>3.62</td>
<td>1.09</td>
</tr>
<tr>
<td></td>
<td>Teacher-Librarian</td>
<td>4.02</td>
<td>0.82</td>
</tr>
<tr>
<td></td>
<td>All Training</td>
<td>3.64</td>
<td>1.01</td>
</tr>
</tbody>
</table>

The data presented in Table 10 indicates that there is a significant difference between the self-perceived pedagogical involvement of librarians with different types of training (F=8.87, df=2.79, p<0.001). The teacher-librarians have higher self-perceived pedagogical involvement than the other groups of librarians. There was no significant difference in self-perceived pedagogical involvement of the librarians with and without a teaching license. Furthermore, an almost significant difference was found for social involvement (F=2.70, df=2.79, p<0.1). The teacher-librarians reported higher social involvement than the other librarians. For the communications dimensions of involvement, no significant differences were found between the librarians.

Discussion

The purpose of this study was to examine the connection between librarians’ leadership efficacy and school involvement, as perceived by themselves, teachers and principals, and patterns of collaboration between teachers and librarians. In addition, we examined the correlation between the type of training the librarians received and these variables.

Examination of the differences in TLC patterns, as perceived by the teachers and librarians, according to the training the librarian received, reveals that the pattern of collaboration is significantly lower among librarians without a teaching license compared to those with a teaching license and teacher-librarians. Advanced collaboration requires the librarian to be integrated into teaching in the school (Montiel-Overall, 2007) and the librarian to be a partner in the development, implementation and evaluation of educational units (Loertscher, 1988, 2000).

Studying the relationship between three dimensions of librarians’ LSE and their LE-T and LE-P (librarians’ leadership self-efficacy as perceived by teachers and principals, respectively), and the three patterns of TLC reveals a significant, positive correlation between a high perception of the librarians’ leadership efficacy and a tendency towards advanced TLC, as perceived by all groups in the sample. Furthermore, there is a negative correlation between perceived leadership efficacy and minimal TLC, so that a lack of ability to create employee commitment and lack of ability to overcome obstacles correlate with the minimum pattern of TLC, as perceived by librarians. For teachers and principals, low levels in all three leadership efficacy parameters correlate with a tendency towards minimal TLC.

Of the three dimensions of leadership efficacy, a high ability to create employee commitment significantly predicted, in the perceptions of teachers and librarians, the tendency for advanced TLC. Librarians, principals and teachers perceived the connection between the type of training the librarian received and their leadership efficacy differently. While librarians and principals perceived no significant difference between the kind of training librarian received and their leadership efficacy, teachers perceived the teacher-librarians as having the highest leadership efficacy for both setting direction and creating employee commitment. Since these two dimensions predict the advanced pattern of TLC, the chances of teacher-librarians having an advanced pattern of TLC are higher than other groups of librarians.
Leadership efficacy for setting direction (the ability to set goals and a vision for the library-resource center) and the ability to construct a system of relationships with colleagues to create commitment to goals leads to an advanced pattern of TLC, if the librarians are trained as teachers. The most desirable situation, from the perspective of the teachers, is for librarians to be teacher-librarians.

In the librarians’ responses, we found a correlation between efficacy for setting direction and the tendency towards traditional TLC. Therefore, the ability to set direction is sufficient for the traditional pattern of TLC but not for the advanced pattern. From the perspective of the librarians, without the abilities to create employee commitment and overcome obstacles, it is impossible to move towards advanced TLC. This is consistent with the need that Abilock (2002) identified among teachers for inspiration based on the vision beyond future targets in order to achieve collaboration. Anzenberg and Yitzhaki (2006) note that, in order for the work plan of the library-resource center to be successful, the librarians must present a vision and be able to motivate the community of learners.

Further support may be found in the research of Olson and Singer (2004) who identify collaboration as one of the three skills required of leaders, and a key element in leadership. Furthermore, Lance (1999) and Branch and Oberg (2001) found that a connection between leadership and collaboration is critical, that leadership promotes collaboration and is the key for its expansion.

Examination of the relationship between the three dimensions of the librarians’ school involvement, as perceived by the librarians, teachers and principals, and the three perceived patterns of TLC shows a positive connection between them for all three groups in the sample. High levels of involvement are indicative of an inclination to advanced TLC, and vice versa. This finding is consistent with the research of Lance (1999) and Branch and Oberg (2001) who found that teachers are more willing to collaborate with teacher-librarians who showed high levels of leadership and school involvement and that involvement and participation in the school is the key for expanding collaboration with teachers. The Colorado study (Lance & Loertcher, 2001) shows a positive connection between expanding the traditional role of the librarian and expanded involvement in school activities outside of the library-media center, which further supports the current findings. Expanding the traditional role of the librarian includes increased involvement with principals, teachers and students.

Social involvement, as perceived by principals, was found to predict an advanced pattern of TLC. It seems that the principals consider social involvement as something that can be leveraged for increased pedagogical involvement, based on the idea that someone who is more involved socially is more connected to his/her workplace and will contribute more professionally than someone who is not.

Looking at the differences between types of training the librarians received and the three dimensions of school involvement, as perceived by librarians, teachers and principals, points to the existence of significant differences between teachers-librarians and other librarians in their perceived degree of pedagogical and social involvement. Teacher-librarians perceive themselves and are perceived by teachers as having a significantly higher level of pedagogical and social involvement compared to other librarians. Principals also perceived the pedagogical intervention of teacher-librarians as significantly higher than other librarians and having social involvement that is significantly higher than librarians without training in education. In addition, teacher-librarians are perceived by teachers as being highly involved in communications within the school. This can be explained by the fact that teachers perceive the teacher-librarians as colleagues and partners in the daily educational work of the school. Therefore, they assign them high involvement in all parameters. Teachers’ perception of teacher-librarians as colleagues naturally creates closer, more intense working relationships than those with librarians who are not teachers.

One of the limitations of this study was the relatively low response rate of principals who participated in the study, in comparison to the number of librarians and teachers who participated. Also, we encountered some difficulties in the use of electronic questionnaires. While this medium enabled a wide distribution of the questionnaire, the general response rate was not very high, and some respondents requested that they be sent a printed questionnaire.
Conclusions
The current study shows that both leadership efficacy and school involvement are predicative of an advanced pattern of TLC. The chances that librarians who are perceived as having high leadership efficacy, by themselves, teachers and principals, will maintain advanced TLC are higher, as are the chances for librarians with high levels of pedagogical and social involvement in the school.

This illuminates how important leadership efficacy of librarians for increasing the chances of advanced TLC. The findings of previous studies show that it is possible to develop and improve leadership efficacy by including leadership training programs in the professional training of librarians and information scientists.

This study is an important step in deepening our understanding of the importance of school involvement and leadership of librarians in schools for promoting advanced TLC. Furthermore, it indicates the importance of teaching as the key element for improving existing work patterns and librarians' relationships with principals and teachers and for increasing the contribution by the library resource center to advancing teaching and learning processes in the school.

The current findings contribute to changing perceptions regarding the preferred team for staffing library resource centers in schools, in terms not only of personality traits but also professional skills and training. Until now, emphasis often has been placed on training librarian-information scientists and ignoring the importance of educational skills and the pedagogical training of school librarians. Teacher-librarians were found to have the best chances for advanced TLC since they were identified as having higher leadership efficacy and being more involved in the life of the school. The clear conclusion is that teachers with seniority and classroom experience should be at the forefront of library resource centers. They should be trained as librarian-information scientists and helped to develop leadership skills, in order to improve the chances for advanced collaboration with teachers, thereby leading to a change in the problematic reality that exists today.

The present study has focused on the Leadership Self-Efficacy concept in relation to school librarians. Further research is needed on specific leadership behaviors of school librarians at different levels of education, e.g., elementary versus secondary school levels.

References


**Author Notes**
Ruth Ash-Argyle is an experienced teacher and also works as a teacher-librarian and director of the Community Library & Resource Center at the Leo Baeck Education Center in Haifa, Israel. In 2010, she joined the faculty of the Information and Knowledge Management program at Haifa University.

Professor Snunith Shoham was the Chair of the Department of Information Science at Bar Ilan University, Israel and has published the books, *Organizational adaptation by public libraries* (Greenwood Press, 1984) and *Classification and browsing: The conjunction of readers and documents* (Sussex Academic Press, 2000), as well as many articles on information gathering behavior, knowledge organization, and school and public libraries.