Training Library Professionals to Teach: A Study of New Jersey Train-the-Trainer

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Abstract
For 17 years (1995-2012) the New Jersey Train-the-Trainer (NJTTT) taught information professionals how to teach and train their colleagues and patrons. The initial program was partially funded by Title III LSCA funds, with additional funding provided by the State Library. With between 15-25 participants per session, it is estimated that NJTTT strengthened the local and national library workforce by training more than 350 information professionals. The trickle-down effect of these 350 trainers has not yet been measured. This research study surveyed and interviewed NJTTT graduates, with the goal of ascertaining the program's effect on their careers and their organizations. The program prepared library professionals for instruction responsibilities, conference presentations, and for promotions within their organizations and the profession. The NJTTT program has had lasting effects on the library community and is a prime example of library professionals taking charge of their careers and using their skills to strengthen the profession.

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1 Introduction

From 1995-2012 the New Jersey Train-the-Trainer (NJTTT) program taught librarians and library professionals how to teach and train their colleagues and patrons. The initial program was partially funded by the New Jersey State Library, using Title III Library Services and Construction Act funds, with additional funding provided through fees paid by the participants' libraries (New Jersey Train the Trainer Group, 1994, p. 5). According to the original program proposal, NJTTT began in November 1993, with eight New Jersey librarians who were sent to an intensive "Train-the-Trainer" workshop developed by the Maryland Continuing Education Network. The group represented a "variety of types of libraries, plus staff from regional library cooperatives and the New Jersey State Library" (New Jersey Train the Trainer Group, 1994, p. 1). These librarians returned to New Jersey, and in 1995 four members of the group presented the first NJTTT workshop.

The first NJTTT workshop was held in Freehold, New Jersey on March 6-8, 1996. The total cost of the program was $9,037; $3,037 was provided by the New Jersey State Library's LSCA funds, and the remainder was "shared by the twenty-four participants at a registration fee of $250 to cover room, board, materials, supplies and staff development directory" (New Jersey Train the Trainer Group, 1994, p. 7). Subsequent NJTTT workshops continued using the model of a multi-day immersive and intensive workshop, staffed by volunteers, with costs shared by the New Jersey State Library and participating libraries.

In 2011, administrative responsibility for NJTTT was transferred to the LibraryLinkNJ regional library cooperative, whose executive director was one of the librarians who attended the original Maryland Continuing Education Workshop, and whose assistant director served as co-coordinator of NJTTT from 2001-2005. This shift was prompted by significant cuts to the New Jersey State Library budget, which led to changed organizational priorities. As a result of these changes, primary responsibility for statewide librarian continuing education/professional development, including NJTTT, was moved to the cooperative (LibraryLinkNJ, 2010).

Participant feedback, technological changes, and escalating costs led to changes in the curriculum, workshop format, and location. These changes helped keep NJTTT interesting for the trainers, and relevant to the trainees. From 1995-1997 the content of the NJTTT workshop was based on Ittner and Douds' *Train-the-Trainer* series. From 1998-2000 these materials were modified to "introduce trainers to the availability and use of new training technologies… [and] to provide current information to librarians who are finding themselves taking on the role of technical trainer" (Kay and Lackie, 2004, p. vii). The revised and expanded curriculum necessitated the expansion of the workshop to four days, and this curriculum and format were used, with slight modifications, until 2009. In 2009, a severe increase in the cost of the Ittner and Douds materials led a team of volunteer trainers (including the authors of this study) to create completely new course materials specifically for NJTTT. All of the lessons, including instructor's guides, were re-written; these materials were used for the 2010 and 2012 workshops.

With between 15-25 participants per session, it is estimated that NJTTT strengthened the local and national library workforce by training more than 350 library workers. While initial feedback and anecdotal accounts suggest that a majority of the participants found NJTTT useful, there has yet to be a systematic attempt to measure the impact of the program. This paper describes some of the findings from a study, which attempted to measure the impact of NJTTT. In this study, impact is operationalized as the effectiveness of NJTTT as a professional development program. Effective staff training means staff will be provided with opportunities to acquire the skills and knowledge to perform the tasks required for their specific jobs. Effective training is delivered in a timely manner, and both trainers and trainees work to ensure a match between required skills and available training. There is anecdotal evidence in the New Jersey regional library community that NJTTT was an effective program; this study gathered data to ascertain if there is any empirical evidence of NJTTT effectiveness.

1   Theoretical Underpinnings

At its heart, professional development is about learning by doing, specifically from a constructionist perspective, and reflection. Attributed to Seymour Papert of Massachusetts Institute of Technology, Papert's theory of constructionism is an extension of Piaget's theory of constructivism.

1.1   Constructionism

> Constructionism—the N word as opposed to the V word— shares constructivism's view of learning as "building knowledge structures" through progressive internalization of actions… It then adds the idea that this happens especially felicitously in a context where the learner is consciously engaged in constructing a public entity, whether it's a sand castle on the beach or a theory of the universe. (Papert, as quoted in Ackermann, 2001, p. 4)

Papert's main assertion is that learning and idea formation are art forms, and are best accomplished while doing and while working with objects, artifacts and tools, be they documents, software tool, media and "actualized" into a final product, which for the purposes of this paper includes engagement in staff development and continuing education activities.

However, a variety of other learning theories are applicable to the learning that takes place during the continuing education process. To accommodate the various theories and situate professional development learning in the most holistic fashion, the work of theorist Knud Illeris is consulted. In his work *The Three Dimensions of Learning* (2002), Illeris positions learning at the intersection of internal and external cognitive, and emotional and social learning processes. Tapping into the fields of education, psychology and management, Illeris posits that learning has two fundamental assumptions: 1) Learning involves two distinct processes, an internal psychological process in which new information is acquired and added to existing knowledge, and an external process where the individual's information acquisition is shaped and influenced by their interactions with their environment. 2) The learning that occurs during these internal and external processes encompasses three socially situated contexts, the cognitive domain of knowledge acquisition, psychological dimensions of emotion and motivation, and the social domains of communication and cooperation. If done well, professionals engaging in continuing education will be employing cognitive, emotional, communication and collaborations skills, as they reflect and interact with others.

1.2   Reflection

Another primary component of the educational value of continuing education is reflection. Reflection, which is certainly encompassed within Illeris' educational theory matrix, is a method by which learners critically and thoughtfully contemplate the content they're learning and applying it to their lives and repertoires. In the case of staff development and continuing education, library professionals will hopefully reflect not only on the new learning experience, but will reflect on their cumulative work experiences, from start to finish (Porter & Cleland, 1994; Seidel & Walters, 1997; Underwood, 1999; Young, 2002; Zubizarreta, 2004). Author Jennifer Moon likens professional development to journal keeping in its use of reflection, the purpose being to document "experiences and development, noting the interactions between personal and professional development and academic work, student empowerment and a development of meta-cognitive abilities" (2004, p. 76).

Ideally, the practice of reflection, which has roots in the works of educational theorists Schon, Mezirow, Dewey, Kolb and Habermas (Moon, 2004), will develop LIS professionals as reflective practitioners and provides a sense of purpose to learning, promotes awareness, self-empowerment, self-improvement, and emancipation. Reflection facilitates learning by doing and enhances problem-solving skills. Moon (2004) indicates that there are several levels of reflection, including descriptive reflection (describing an event), dialogic reflection (stepping back from an event and contemplating the reasons for said event), and critical reflection (contemplating reasons for events in the "broader social, ethical, moral or historical contexts") (p. 75). It is surmised participation in well designed and relevant continuing education opportunities will inspire dialogic, if not critical reflection.

2   Methodology

The population for this study was all participants in NJTTT. The exact number of participants is unknown, but best estimates place the number at approximately 350 people. Some of the data for this study was gathered using an online survey. A survey was selected as the primary data collection method because it allows the collection of information from a sample of a group and the extrapolation of their responses to the entire population (Rossi, Wright, & Anderson, 1983; Robson, 1993; Krathwohl, 1998). The surveys were cross-sectional, with a single data collection period (Creswell, 2003), and were administered via Google Docs. Individual requests for participation in the survey were sent, via email, to 224 people on NJTTT "master lists" of past participants. Calls for survey participation were also posted to the LibraryLinkNJ email forum, a New Jersey Library Association email forum, and in the weekly New Jersey State Library electronic newsletter. There were 29 usable responses to the survey, which represents approximately eight percent of the NJTTT participants. The low survey response rate is not sufficient to use the survey data to make claims about the population of NJTTT participants; however, there is sufficient data to ascertain if there is any empirical support for the anecdotal claims about the effectiveness of NJTTT.

Additional data were derived from NJTTT workshop evaluation forms workshops. The evaluation forms provided data post-workshop perceptions of effectiveness from participants. The evaluation forms were from the years 1997, 2000-2003, 2005, and 2009-2010, and provide data from 146 participants. The format of the evaluation forms remained consistent over the course of the program, but there were changes that reflected the evolution of the curriculum, most specifically to accommodate the use of technology in training. The items selected for analysis used a 5-point Likert scale to measure respondents' perceptions of their level of preparedness to use selected skills and concepts before and after the NJTTT workshop, with 1 representing "totally unprepared" and 5 representing "fully prepared" to use a specified skill or apply a specific concept.

The items included in this analysis are *Adult Learning Principles*, *Developing Learning Objectives*, *Developing an Instructional Plan*, *Using Facilitation Skills*, and *Evaluating Training*. These items represent core course content and were the only items in the data for all available years; summary data for these items are presented in Table 1.

Year	N	Adult Learning Principles		Developing Learning Objectives		Developing an Instructional Plan		Using Facilitation Skills		Evaluating Training	
		Before	After	Before	After	Before	After	Before	After	Before	After
1997	20	2.25	4.10	2.25	4.40	2.20	4.50	3.00	4.20	2.50	3.90
2000	16	2.18	4.31	2.18	4.50	2.62.	4.06	2.93	4.31	2.43	3.81
2001	16	2.19	4.31	2.13	4.44	2.06	3.13	2.56	4.31	2.25	4.53
2002	19	2.53	4.71	2.79	4.74	2.47	4.63	3.37	4.76	3.00	4.53
2003	16	2.69	4.44	2.56	4.38	2.31	4.50	2.63	4.31	2.56	4.13
2005	20	2.10	4.15	2.50	4.70	2.15	4.35	2.70	4.25	2.55	4.20
2009	23	2.43	4.48	1.96	4.52	2.61	4.48	3.04	4.26	2.48	4.30
2010	16	2.69	4.44	2.38	4.69	2.31	4.50	2.63	4.50	2.38	4.50

Table 1: Summary Statistics for Selected Items Measuring Perceptions of Preparedness
to Apply Skills/Concepts Before and After the NJTTT Workshop

This paper discusses the findings from three open-ended questions that were included in the survey. Where appropriate, data from the evaluation forms has also been included in the discussion to provide additional support for the survey analysis. In this discussion, each question is treated independently. The study addressed the following questions:

1. What did respondents think made NJTTT successful?
2. What has been the impact of NJTTT on respondents' careers?
3. What specific strategies or techniques from NJTTT did respondents use when conducting training?

Emergent coding (Neuendorf, 2002, p. 194) was used to develop a series of nominal categories to organize the responses for each question. The categories were developed by one member of the research team, and then used by the other member of the team to independently code the responses. Disagreements about coding use were discussed and, where possible, resolved. The *ReCal* web service (http://dfreelon.org/utils/recalfront/) was used to calculate the reliability coefficients (Freelon, 2010). Percentage agreement and a Cohen's kappa coefficient were calculated to measure the reliability of the codes assigned to the responses (Neuendorf, 2002; Morgan, Reichert, &

Harrison, 2002), and the resulting analysis indicated very good to fair levels of inter-coder reliability (Viera & Garrett, 2005). The percentage agreement and Cohen's kappa coefficient measuring the inter-coder reliability for the variables are presented in the Findings section when each of the questions is discussed.

3   Findings

3.1   Factors Contributing to the Success of NJTTT

The first question asked respondents to describe what they believe made NJTTT successful. There were twenty-nine usable responses to this question. The coders identified four categories among these responses, with many of the responses containing more than a single category. Inter-coder reliability was calculated for each category of response. Table 2 presents the four categories and intercoder reliability statistics for the responses to this question.

Category	Cases	N Agreements	Percent Agreement	Cohen's Kappa
Instructors	29	25	86.21	0.70
Environment	29	20	68.97	0.28
Opportunity to Meet a Variety of Librarians	29	24	82.76	0.57
Course structure and content	29	25	76.21	0.68

Table 2: Factors Contributing to the Success of NJTTT

The first category contains responses, which indicate that the instructors were an important factor in the success of NJTTT (N = 18/20). Respondents cited the knowledge, dedication, passion, and competence of the instructors. An example from Respondent 5: "The passion of the presenters. Their expertise, their dynamic presentation skills and their camaraderie." Respondent 6 thought that "(t)he passion of the instructors to work together as a team to make the training be valuable" was a factor in the success of the program. Inter-coder reliability for the responses in this category was good as indexed by Cohen's kappa ($\kappa = 0.70$). The percentage of agreement between the two coders was 86.21 percent.

The second category contains responses that attribute success to the environmental factors surrounding the workshop (N = 12/3), more specifically to the immersive and supportive environment of NJTTT. The following statement from Respondent 23 is representative of the responses in this category: "The fact that it was so immersive. Before I attended the training session I was a little annoyed that I had to spend two nights away from work and home. However, the reality was that I had no work obligations or home distractions competing with my NJTTT experience, I was 'free' to allow myself to fully concentrate and experience the class." Inter-coder reliability for the responses in this category was fair as indexed by Cohen's kappa ($\kappa = 0.28$). The percentage of agreement between the two coders was 68.97 percent.

The third category contains responses that attribute the success of the program to the networking opportunities provided by the workshop (N = 5/10). The responses in this category all described the opportunity to meet and interact with a variety of librarians, both students and instructors, as an important element in the success of NJTTT. Respondent 28 provides the following example of the responses in this category: "Chance to meet librarians from throughout the state and learn from them." Respondent 9 says "TTT fostered relationships which became a foundation for healthy collaboration and collegiality across the state for years to come." Inter-coder reliability for the responses in this category was moderate as indexed by Cohen's kappa ($\kappa = 0.57$). The percentage of agreement between the two coders was 82.76 percent.

The final category contains responses that attribute the success of the program to the structure and content of the course (N = 21/19). The statements in this category spoke specifically to the content of the course and how it was delivered. Examples include: "The content and exercises were thorough and directly applicable to the training job" (Respondent 16); "The instructors and topics were varied enough to cover a variety of topics needed (Respondent 15); and "Content very clearly presented; reasonable goals and expectations" (Respondent 3). Inter-coder reliability for the responses in this category was good as indexed by Cohen's kappa ($\kappa = 0.68$). The percentage of agreement between the two coders was 76.21 percent.

3.2   Impact of NJTTT on Respondents' Careers

This question asked respondents to describe the impact of NJTTT on their careers. There were twenty-nine usable responses to this question, and the coders identified four categories in the responses, with several responses containing statements that fit into more than one category. Table 3 presents the four categories and intercoder reliability statistics for the responses to this question.

Category	Cases	N Agreements	Percent	Cohen's Kappa

			Agreement	
Increased Confidence as a Speaker/Presenter	29	24	82.76	0.65
Improved Training Skills	29	25	86.21	0.70
Expanded Professional Network	29	28	96.55	0.92
Career Advancement	29	25	86.21	0.58

Table 3: Impact of NJTTT on Respondents' Careers

The first category contains responses where respondents reported increased confidence as a speaker or presenter (N = 13/12). Typical comments are like this one from Respondent 11, who reports: "I am much more confident about training and speaking in front of a group," and the one from Respondent 29: "Be less nervous when giving presentations." Inter-coder reliability for the responses in this category was good as indexed by Cohen's kappa ($\kappa = 0.65$). The percentage of agreement between the two coders was 82.76 percent.

The second category contains responses indicating that an improvement in their training skills resulted from participation in NJTTT (N = 19/17). For example, Respondent 25 says: "It gave me the tools to prepare classes and training sessions. It gave me a starting point." Respondent 2 says: "I believe it made me a better presenter. I learned how to engage individuals as I'm presenting and I think that's a big factor." Inter-coder reliability for the responses in this category was good as indexed by Cohen's kappa ($\kappa = 0.70$). The percentage of agreement between the two coders was 86.21 percent.

The improvement in training skills is supported by the data from the evaluation forms. The mean rating of level of preparedness before the workshop was 2.83, but after the workshop, the mean increases to 4.37.

The third category contains responses that spoke of an expanded professional network as a result of participation in NJTTT (N = 9/8). Responses in this category include the following from Respondent 7: "Making connections all throughout NJ and then the USA as these people move on;" and from Respondent 6, who states: "NJTTT allowed me to network and meet many colleagues from around the state that I would have not met otherwise." Inter-coder reliability for the responses in this category was very good as indexed by Cohen's kappa ($\kappa = 0.92$). The percentage of agreement between the two coders was 96.55 percent.

The final category contains responses that describe the impact of NJTTT as leading to career advancement (N = 7/5). The following response provides a clear example of the responses in this category: "I was a library supervisor, a staff position in an academic library. I attended NJTTT in anticipation of an ILS migration project, which would require a lot of training. It gave me confidence to do that work. My skill was noted and I was promoted. I continued to provide training in that job, and as a faculty member at another institution now manage a staff training program" (Respondent 1). Inter-coder reliability for the responses in this category was moderate as indexed by Cohen's kappa ($\kappa = 0.58$). The percentage of agreement between the two coders was 86.21 percent.

3.3   NJTTT Skills Applied in Post-Workshop Training Activities

The third question asked respondents which skills from NJTTT lessons they use in their current training activities. There were twenty-nine usable responses to this question, and the coders identified five categories in the responses, with many responses containing statements from several categories. Table 4 presents the five categories and intercoder reliability statistics for the responses to this question.

The first category of responses mentioned the use of concepts relating to the lessons on adult learning principles (N = 9/8). Most of the responses in this category simply used the words "adult learning principles," however, Respondent 9 gave the following response: "The understanding of adult learning principles has stayed

Category	Cases	N Agreements	Percent Agreement	Cohen's Kappa
Adult Learning Principles	29	28	96.55	0.92
How to Prepare for Training	29	26	89.66	0.78
Using Training Aids	29	29	100.00	1.00
Facilitation Skills	29	23	79.31	0.45
How to Conduct/Deliver Training	29	24	82.76	0.63

Table 4: NJTTT Skills Applied in Post-Workshop Training Activities

with me and continued to inform all of my speaking and training." Inter-coder reliability for the responses in this category was very good as indexed by Cohen's kappa ($\kappa = 0.92$). The percentage of agreement between the two coders was 96.55 percent. The evaluation forms support participants use of this skill with the mean pre-workshop

preparedness rating of 2.25 and a post-workshop preparedness rating of 4.37.

The second category contained responses that described various aspects of training preparation (N = 17/20). Representative responses in this category include "lesson planning (starting from the beginning – really thinking about and examining who the audience will be" (Respondent 7); and "In every class I've taught I've applied the sequencing framework I learned. I've also made sure to add thing that will apply to various learning styles" (Respondent 23). Inter-coder reliability for the responses in this category was good as indexed by Cohen's kappa (κ = 0.78). The percentage of agreement between the two coders was 89.66 percent. *Developing Learning Objectives* and *Developing an Instructional Plan* are two items from the evaluation forms data that are aspects of training preparation. The preparedness ratings for these items also show post-workshop increases.

The third category contained responses that mentioned the lessons about the use of training aids (N = 6/6). For example, Respondent 17 reports learning "(t)o use Power Point as support for my presentation and not to rely on it." Other responses include "Visual aids and handouts" (Respondent 22) and "Appearance of slides" (Respondent 29). Inter-coder reliability for the responses in this category was very good as indexed by Cohen's kappa (κ = 1). The percentage of agreement between the two coders was 100 percent.

The fourth category contained the responses that described concepts relating to the lesson on facilitation skills (N = 9/5). Examples of the types of responses in this category include this one from Respondent 26, who says, "(a)udience, audience, audience -- start there and keep them central throughout the process." While Respondent 4 talks about "(m)anaging super-participants (parking lot list, etc.), allowing for silence while participants consider how to answer a question, respectful replies to 'wrong' answers." Inter-coder reliability for the responses in this category was moderate as indexed by Cohen's kappa (κ = 0.45). The percentage of agreement between the two coders was 79.31 percent. The evaluation forms data lend support to the claim for an increase in this skill with a mean increase in perceptions of preparedness from 2.86 to 4.36.

The final category contained responses that described concepts from the lessons on conducting training (N = 10/11). Responses in this category include: "ROPES (Review, Overview, Present, Experience, Summary) I've used in many, many settings" (Respondent 14); and "learned to 'chunk' the information for presentation, and learned how to pace a training" (Respondent 1). Inter-coder reliability for the responses in this category was good as indexed by Cohen's kappa (κ = 0.63). The percentage of agreement between the two coders was 82.76 percent.

4   Limitations and Further Study

The NJTTT alumni corpus is small, and the delivery model and program structure unique, which limit the applicability of the study's results. However, the study's findings do support anecdotal evidence that the program has benefited the library workforce of New Jersey. Findings also suggest that the immersive structure and opportunities for hands-on learning and reflection are what made the NJTTT an effective professional development opportunity. Further research is called for to investigate if other comparable programs exist and assess their impact. Another avenue for future research is the role of constructionism, reflection, and adult learning principles in professional development as a whole; these considerations appear often in the Education literature but much less so in library and information science education literature. Finally, and of particular note, further research should examine if and how a program such as NJTTT can be delivered online and/or in a shorter period of time. The four-day residential model of NJTTT is probably no longer viable as many libraries do not have the financial luxury to pay for an employee to spend that amount of time away from the library (for an event that's not a major conference), no matter how valuable the content.

5   Conclusion

Unlike other teaching or service professionals, most librarians are not mandated to engage in continuing and professional development, but that does not mean that it's not valuable and necessary to growth of LIS professionals. Hurych (2002) suggests that professional development opportunities are an essential obligation and part of a librarian's work life:

Education for the contemporary professional no longer ends with the diploma, if it ever did. It has been recognized that continuing education strengthens not only knowledge and skills necessary for competent performance but also values and attitudes necessary for the service orientation of a profession. (257)

Weigand concurs that professional development is essential and suggests that a formal degree is only the beginning of a librarian's education.

The shelf life of a degree is approximately three years and declining. Maintaining competence and learning new skills must be at the top of every professional's "To Do" list. It is an ethical responsibility, to be sure, but also one that is pragmatic and critical for career success. ... Continuing professional education is no longer an option, it is a requirement of professional practice. (Weigand 1999, 201)

The necessity of professional development engagement is not in question, however, the delivery modality, the cost, and the effectiveness of said opportunities are. As has been demonstrated by the research conducted on the NJTTT program, continuing education opportunities that are immersive, intensive, and responsive to adult learning styles are the type of programs in which LIS professionals should be engaging. The activities that are the most worthwhile and effective are the intentionally designed programs that encourage opportunities for hands-on learning and reflection. NJTTT was an intentionally designed program that permitted learners the opportunity to actually design their own lessons and activities, and allowed them ample time for reflection. This intentional design also allowed students to learn from instructors and from their peers. The immersive and hands-on process of the program's curriculum engaged learners cognitively, which gave them the opportunity to apply their new knowledge to their specific work and personal contexts. Because the program experience was so relevant, it was long-lasting and remained with the learners years after they completed the NJTTT course; this was evident in the participants' responses.

Programs like this can be time and labor intensive, expensive, and located outside of the LIS discipline. However, such professional development opportunities are ultimately valuable, memorable, and provide LIS professionals with confidence, ambition, and the knowledge to pursue and continue scholarly and teaching activities, which benefits the entire field and the communities being served. Short of requiring participation in professional development activities, there should be 1) some incentive for LIS professionals to engage and 2) there should be a variety of opportunities available on a wide variety of relevant topics. Ideally, there will be other programs such as NJTTT, but also other constructionist type programs that encourage reflection and hands-on learning. The continuing education of librarians benefits not only the profession but also the communities being served.

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