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An online training module for staff in a combined university-public library

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**AN ONLINE TRAINING MODULE FOR STAFF
IN A COMBINED UNIVERSITY-PUBLIC LIBRARY**

A Project

Presented to

**The Faculty of the School of Library and Information Science
San José State University**

In Partial Fulfillment

of the Requirements for the Degree

Master of Library and Information Science

by

Bridget Kowalczyk

August 2006

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ABSTRACT

AN ONLINE TRAINING MODULE FOR STAFF IN A COMBINED UNIVERSITY-PUBLIC LIBRARY

by Bridget Kowalczyk

This thesis project documents the establishment of an online staff training tutorial for major service points in the Dr. Martin Luther King, Jr. Library of San José, California. Data examined to create the structure for project development include desk observations, in-house service point statistics, and reports from staff development and metrics consultants. Tutorial content was determined by information gleaned through literature review, data analyses, current and historical library training documents, personal desk experience, and pre-existing online tutorials. This report details the process for the creation, design, development, and preliminary testing of an online training tutorial focused on the reference interview and referral process for the two combined service points responsible for the bulk of the first tier of reference service, the information kiosk and the reference support desk.

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1. INTRODUCTION

1.1 Background of the Project

1.1.1 Building a Combined University-Public Library

A core value of libraries and librarians locally, nationally, and internationally is cooperation, more so than perhaps any other agency and profession. The manifestations of that client-focused cooperation are many, but the ultimate manifestation and challenge is a joint-use or combined, library. (Bundy, 2003, p. 129)

In the United States, the majority of combined libraries has traditionally been limited to school community libraries. However, combined university-public libraries do exist in Australia, Finland, Latvia, and Sweden, with Germany having led the movement. In February 1997, the president of San José State University (SJSU), Robert Caret, and the mayor of the city of San José, Susan Hammer, announced their intent to join in that spirit of cooperation by building a new library that would serve both communities. Within a year of this announcement, combined committees from the San José State University Library (SJSUL) and the San José Public Library (SJPL) were formed to discuss operational issues and plan for the new library. Staff members from each institution continued to perform their daily duties while assuming the additional responsibility of serving on numerous planning committees. Given the size of this endeavor and concern over potentially conflicting philosophies, the first meetings focused on creating the following combined mission statement, which was approved in its present form prior to the opening of the King Library in August 2003:

SJLibrary.org strives to:

- Enrich lives by fostering lifelong learning and ensuring that every member of the community has access to a vast array of ideas and information.

- Provide students, instructors and the community access to the information they need for educational and personal growth throughout their lives.
- Support the San José State University Library's educational mission in expanding the base of knowledge through research and scholarship. (SJlibrary.org, 2004)

1.1.2 The Creth Reports

On July 9, 2002, Patricia Breivik, dean of SJSUL, and Jane Light, director of the SJPL, presented the findings of library staff development consultant Sheila Creth's 2002 report concerning the proposed design and implementation of combined university-public library staff functions. Thus with little more than a year before its official opening, the staff of the Dr. Martin Luther King, Jr. Library (King Library) began meeting to discuss and write policies and procedures for the functioning of its combined units, which include Access Services, Technical Services, Information Technology, and Reference Services. It was determined in early discussions that the staff of Access Services and Reference Services had major work ahead; out of the four combined university-public library units, these two were responsible for public service points. Staff would need to work quickly and efficiently, while remaining flexible and open to cross-training on equipment, software, facilities, and safety, as well as to prove themselves capable of learning, understanding, and following new policies and procedures.

Despite the efforts of all the personnel involved, once the library opened its doors in August 2003, the staff reported the necessity of revisiting policies and creating new ones to effectively function at combined university-public library service points. In fact, the need for additional training to correspond to the recently-developed policies and procedures was voiced so strongly by library staff that the management requested that

Sheila Creth revisit this issue. In December 2003, Creth produced another report assessing immediate training needs. This report was based on nine meetings with unit heads, team leaders, and library administrators. In relation to public service, staff members reported that neither are they able “to provide to users accurate information about the physical layout of the building and location of all services nor are they able to accurately describe the scope of services for each library unit whether merged or not” (Creth, 2003, p. 4). In response to these concerns, unit heads implemented a series of training workshops within their units, as well as library-wide on issues relevant to other units. A full two years after the combined King Library opened, staff in Access Services and Reference Services continue to meet regularly with their respective units to discuss problems, solutions, and the need for continuous training opportunities on facilities, resources, and functions in the combined university-public library.

1.1.3 A New Approach: Proposing a Staff Training Tutorial

In the Creth (2002; 2003) reports mentioned above, little emphasis is placed on the impact of the size, diversity, and nature of the combined staff. An informal analysis conducted in November 2005 of the combined SJSUL and the SJPL Staff Directory (SJLibrary Intranet, 2005a) revealed a count of 629 SJPL staff and 203 SJSUL staff, including full and part-time employees, as well as student assistants. Approximately 304 of the 629 SJPL employees work or have worked at the King Library, totaling approximately 507 full and part-time employees at the King Library working staggered shifts to cover services available seven days a week. A count of staffed public service points and services open to the public numbered approximately 24, of which five are

handled by tenants of the library, including the Welcome Center, the Adaptive Technology Center, and the Friends of the Library Bookstore. Thus, at least 19 unique locations have service points where the public expects to get friendly service, accurate information, and referrals from the SJSUL or SJPL staff.

To address the need for uniform training of staff at public service points, an online staff training tutorial was proposed to the library administration, and the proposal was accepted by the library administration as a thesis project focused on improving staff training. Phase One of the project began in November 2005.

Phase One of this project focused on informal interviews and discussions with members of the Reference and Access Services units to determine their attitudes toward the creation of an ad hoc committee to supervise/coordinate the project and the development of an online training tutorial for the first floor information kiosk and the second floor reference support desk, with the ultimate goal of providing tiered reference service. Tiered service for the purpose of this project is defined as providing a separate information desk staffed by paraprofessionals and student assistants whose job it is to answer “directional and quick-answer queries” and to “refer complex and in-depth questions” to librarians (Bopp & Smith, 2001, p. 268). The information kiosk, which is part of Access Services, is not staffed by librarians. However, the reference desk on the second floor employs a combination of librarians, support staff, and student assistants. Subscribing to both a tiered-reference model, and reference statistics classification system of reference transaction question levels (Warner, 2001, p. 53), paraprofessionals at both desks are expected to screen incoming patrons, answer directional and skill-based

questions, and refer strategy-based questions to librarians. Signage at the reference desk was added in January 2006 to help patrons differentiate between reference support staff and librarians, and to increase the likelihood that they will be more efficiently channeled to the appropriate resource.

Both librarians and support staff expressed enthusiasm for the proposed online tutorial as a potential solution to the inconsistency of service provided at the two service points, as well its usefulness for reinforcing appropriate reference interview skills and the referral process. The library administration endorsed the idea of an online staff training tutorial that would be accessible 24/7 for orientations and brush up instruction for service point personnel. SJSU Library Senior Access Services Coordinator, Randall Anderson (personal communication, December 8, 2005), estimates that at least 50 individuals have worked at the information kiosk on the first floor since the opening of King Library in August 2003. A cursory analysis of the staff working the reference support desk on the second floor in November 2005 resulted in a count of 73, including 26 full-time reference librarians, 8 part-time reference librarians, 6 full-time staff, 8 part-time staff, and 25 student assistants.

In November 2005, with the administration's support, the King Information Staff Training Team (KISTT) formed and was put in charge of determining the basic training needs of staff at the information kiosk and the second floor reference support desk, with an emphasis on determining which training topics should be addressed through in-person training, and which could best be served by an online tutorial. The thesis author was part of the team.

Phase Two of the project commenced on December 8, 2005, when KISTT met for the first time to discuss and identify the shared training requirements of the information kiosk and reference support desk, determine the best method for delivery of training (i.e., online tutorial, face-to-face training, or a combination of the two methods), and create an implementation plan.

1.2 Significance of the Project and Justification

1.2.1 SJSUL vs. SJPL Reference Desk Queries

Prior to the opening of the combined university-public library, studies were conducted to gauge differences and similarities in patron queries at each institution. Librarians also engaged in shadowing at each other's desks, and recorded their experiences. Consultant Thomas A. Childers of Drexel University was enlisted to analyze the preliminary results. No specific training issues were identified from the shadowing experience. However, from Childers's analysis of the questions received at the reference desks of SJPL and SJSUL, one major training issue surfaced. Though Childers found the majority of questions asked by patrons to be interchangeable between institutions, the resources used to answer these questions differed. He indicated that the public librarians would need training on the SJSUL databases to perform their duties on the combined university-public reference desk in the new library (Childers, 1999a, p. 3).

1.2.2 Survey of Staff Perceptions

Staff of both institutions also completed a survey on their perceptions of reference and instruction services tasks. Public library staff noted that the bulk of their time was spent on tasks related to K-12 students and members of the general public, while

university librarians reported a focus on instruction to graduate and undergraduate students and faculty (Childers, 1999b, p. 4). In comparison to academic librarians, the survey results revealed that public librarians served a wider constituency, including college students, thus giving them an advantage in preparation for the combined university-public library reference desk. Based on these results an orientation to the collections unique to SJPL would be necessary for university librarians. Agreement between academic and public librarians about the length of the reference interview would also be necessary to provide consistent public service, especially at combined service points.

1.2.3 Metrics Project

Library performance is of primary importance to both the San José State University Library (SJSUL) and the San José Public Library (SJPL). In order to monitor patron perceptions of the combined entity, consultant Thomas Childers was enlisted to conduct a metrics project. “The objective of the King Library Metrics Project is to explore the impact of a merged library, compared to the individual San José Public and San José State libraries” (Childers, 2006, p. 2). After the combined King Library opened, patrons rated the performance of 25 service markers offered as “five services increased, ten declined, and ten remained about the same” (Childers, 2004, p. 2). The service markers assessed included the facility itself and staff performance. Unfortunately, all of the markers involving staff interactions with patrons declined after combining the services of these two institutions.

In 2005, patrons were again surveyed for comparative purposes. Childers worked with the hypothesis that “patrons perceive better quality in marker services after merger.” After its second year of operation, patron perception of staff interactions with patrons declined even further from the 2004 survey. Childers (2006) reported that although “seven services increased (six significantly), twelve declined (ten significantly), and six remained about the same” (p. 3). Nine of the twelve service markers that showed a decline pertained specifically to the staff interactions with the public (Appendix A). Although still positive, patron perceptions were lower than prior to the unification of the two entities. The greatest decrease (18%) was in response to the statement “staff understood what I wanted” (p. 4). Of equal concern is the drop in the patrons’ perception of staff approachability, from 61.7% to 51.5% (p. 36). Despite these decreases, patrons did report an increase in their perception of the value of library services, from 47.7% to 51.5% in 2004, and further to 54.7% in 2005 (p. 41). This evidence of patron awareness may actually account for the decrease they reported in their confidence levels for locating information without assistance, from 49.8% to 43.1% (p. 35), and may also be attributed to the wealth of resources and options available to patrons that resulted from the unification of the university and public libraries. Childers (2006) states that the decline in patron perceptions of services could also be due to the fact that there had been a 50% increase in service demand on a static level of staff since the opening of the combined university-public library (p. 1).

Despite these externalities, these figures could improve if staff working at all service points, including those individuals who answer telephones and perform e-mail

and virtual reference, were trained in conducting proper reference interviews and referrals. Of course, improvements in service would also be contingent upon staffing levels remaining consistent or increasing, and in conjunction with a relatively stable and predictable pattern in levels of user information demands. Staff members must also be allotted time to practice and hone skills learned during in-house resource training and vendor demonstrations in order to retain newly-acquired knowledge.

1.2.4 Issues Affecting Public Service and Staff Training

In the combined King Library, training has been key to offering quality assistance at service points. However, due to the following factors, staff training has become an ongoing, repetitive, and marginally-effective process:

- Large and diverse patron population and equally diverse user needs;
- Retirements, transfers, and graduations resulting in staff turnover;
- Size and complexity of the combined organization and facility itself;
 - University library staff must become familiar with 23 branch libraries
 - Public library staff stationed at King Library must familiarize themselves with the physical layout of the SJSU campus, university policies and procedures, and California State University initiatives
 - Part-time pool staff from each entity (including SJPL pages and SJSUL student assistants) must be familiar with 23 branches, as well as the King Library and the University

- Combined units must adjust to the increase in size of their unit as well as the changes inherent in compromise, decision-making, and a dual-management approach
- Constantly changing, inconsistent, and increasing numbers of policies and procedures;
- Continuous introduction of new technology;
- Growing library collection;
- Optional nature of attendance at most training sessions;

The need for continual staff training to ensure quality service has resulted in numerous hours of time spent in trainer preparation, repeated instructional sessions addressing the same issues, and overuse of copiers and printers to generate copious handouts. The demand for ongoing staff training has contributed to inefficiency in the workplace and low staff morale due to fear of failure, inability to problem-solve, poor time management, and finger pointing. In 2003 and 2004, SJSU professor, Dr. Nancy Da Silva's Psychology 240 classes conducted a King Library employee attitude survey. The purpose of the study was to "examine employee attitudes across various areas such as job satisfaction, work efficiency, and perceived fairness" (Da Silva, 2003, p. 1). In November 2003, 167 of the estimated 300 employees responded to the survey. The issue of customer service was a repeated theme amongst respondents. When asked to comment on "things I like about the King Library," 8% of the staff responded "customer service/staffing" (Da Silva, 2003, p. 3). Conversely, in comparison, when asked what "things need to be improved at the King Library," the category with the highest

percentage, 22%, was “customer service/staffing” (p. 4). Da Silva’s (2004a) group reported an increase between 2003 and 2004 in “the number of employees who plan on leaving King Library” (p. 4). Decreases were also reported in “perceived team performance” and “role harmony” in 2004, with employees testifying to “receiving mixed message from the same person or conflicting messages from multiple superiors” (Da Silva, 2004a, p. 4). Numerous respondents echoed the need for team building to eradicate the “us (SJPL) versus them (SJSU) mentality” (Da Silva, 2004b, p. 1). In 2003, when asked for suggestions to improve conditions at King Library, several staff members suggested the need for training with statements such as “continue and reinforce cross-unit training so that all staff members have some exposure to the work processes done by other staff” (Da Silva, 2004b, p. 3). This trend continued in 2004 as staff repeatedly urged, “provide training sessions so that everyone is on the same page” and “train the managers, not the leads” (Da Silva, 2004b, p. 3). Overall, the staff demonstrated a strong grasp of the need for training as an important method to improve the morale.

Unfortunately, despite this widely accepted staff awareness of the need to prioritize training, budgetary constraints on both the university and public library have further diminished the possibility for accommodating this need. Despite efforts to suitably provide for the various and complicated schedules of library personnel by offering recurring, library-wide training sessions, not all staff members have been able to receive the training necessary to fully prepare them for duty at their respective service points. Group training, at best, is often limited to a portion of weekly or monthly unit

meetings. Therefore, it has become imperative that an alternative and more flexible mode of training be made available.

1.3 Scope of the Project

Committee members agreed that staff training has become more complex not only due to the combined university-public library environment, but also to the variety of services available to the public as well as the means to provide these services in the twenty-first century, including in-person, phone, e-mail, and virtual reference. KISTT decided that because the bulk of the questions fielded by the staff at the information kiosk and reference support desk are in-person, the training needs that KISTT consider should also be limited to in-person staff and patron transactions. The committee discussed the library's ongoing attempts at training, within each unit and library-wide, as well as the numerous reports and studies conducted by consultants since the combination university-public library was announced. The thesis author presented a review of the literature on staff training plans and information on pre-existing online tutorials created and utilized by libraries in the United States.

KISTT identified five issues applicable to both service points: the reference interview and referral process, the building facility and personnel, navigating the library's Web site, patron information (especially PIN number issues), and the procedures for reserving a computer or group study room. KISTT agreed that all of these training issues could be initially delivered through a staff training tutorial, though some would require additional in-person supplemental training. In addition, at its second meeting on February 1, 2006, KISTT members discussed the importance of including training in

safety and emergency procedures and agreed that safety and emergency information for all staff members should indeed be included in the training tutorial. On the other hand, because Reserve a Computer is a feature patrons encounter on the Library Web site, KISTT decided it should be folded into the second module.

In all, KISTT determined that the online tutorial should consist of five distinct modules:

Module 1	Faces and Places
Module 2	The Library Web site
Module 3	Patron Information
Module 4	The Reference Interview and Referral Process
Module 5	Emergency and Safety

The thesis author was given the responsibility of developing Modules 1, 2 and 4 alone, and Modules 3 and 5 in consultation with three other KISTT members.

It is anticipated that after launching the tutorial, the module order may be modified based on staff input. However, for the initial launch, KISTT decided to sequence the modules following the traditional methodology of their respective units for in-person training of newly-hired service point staff.

KISTT discussed the benefit of these modules both as an orientation tool for newly-hired employees and as ongoing means for seasoned employees to revisit an online site with the potential to grow and transform along with King Library information, policies, and procedures. Seen from this perspective, Module 4 (The Reference Interview and Referral Process) was considered to be the most stable of the five modules as its

content would not be solely based on the internal workings of King Library, but rather on a combination of King Library procedures and nationally-recognized core competencies and guidelines for all library personnel. It was also agreed that Module 4 was the most critical and therefore should be completed immediately in order to improve service at King Library. Therefore, this thesis project is devoted to the creation, design, development and preliminary testing of Module 4, the King Library's first interactive online module for training service point staff in the Reference Interview and Referral Process.

1.4 Feasibility

This project received the approval and endorsement of the King Library administration. KISTT committee members devoted approximately two hours per week to writing content, attending meetings, and investigating resources, such as existing online tutorials and previous research on successful staff training tutorials. The project manager spent approximately 20 hours per week towards the completion of this project from November 2005 through spring 2006. No outside costs were incurred for salary or equipment since this project was factored into the Academic Services strategic plan and the Information Literacy Program budget.

2. PRINCIPLES AND THEORETICAL ISSUES

Four distinct areas relevant to library training in an online environment are identified: learning styles, core competencies, effective training programs, and online tutorials and Web sites. This chapter reviews established principles and theories in these four areas as well as published studies and projects to provide a solid theoretical foundation and methodological guidance of this project.

2.1 Learning Styles

Before undertaking the design of any training program or tool, it is imperative to understand the process of how adults learn. Knowles (as cited in Jurow, 1991, p. 2), a leader in the field of adult learning theory, identifies five key characteristics of the adult learner:

1. Adults are accustomed to being in control and taking responsibility for their own lives.
2. Adults bring personal experience to the learning activity.
3. Adults are ready to learn when they need to know something.
4. Adults want to use their knowledge to accomplish something.
5. Adults seek learning experiences that will help them meet internal needs.

Jurow (1991) states that several conditions need to be met to create an atmosphere conducive to learning when a trainer/learner scenario is the method of education. These elements include voluntary participation, a climate of mutual respect, and time for reflection and practice, all of which must culminate in a sense of empowerment for the staff member. Using a constructivist approach, the author strongly suggests beginning

the process with an activity that engages the learner, followed by a period of observation and reflection, and time for generalization and conceptualization. The process concludes with the final step of experimentation and integration wherein the learners consider “ways of applying their new knowledge to their own lives” (Jurow, 1991, p. 4).

Jurow (1991) applies Knowles’ theory to a traditional classroom situation of trainer and learner, where interaction between the two is paramount to a successful learning experience. However, in the twenty-first century, trainers are frequently replaced by handbooks, help screens, and online tutorials. Ideally, library training would involve a combination of online training supplemented with in-person instruction. Since Knowles first acknowledges the importance of staff feeling in control of their learning, it is crucial that trainees are apprised of the overall training plan, and understand how each unique method employed contributes to their complete training experience, and how this training applies directly to their ability to carry out their job responsibilities. Once this has been established, staff should view an online training tutorial as a tool of their choice to empower themselves and to improve their work performance, not as a punishment imposed from above that increases their workload.

Carver (2001) reiterates the importance of preparing staff for training in order to make the atmosphere conducive to learning. She states that “successful transfer involves the acquisition, application, and retention of new skills” (Carver, p. 149) and requires that “certain actions be taken before and after the training program” (p. 150). Prior to training, learners need to be made aware of the program’s objectives, the correlation between the skills to be learned and their job requirements, management’s position on the training

(preferably, endorsement), and assurance that the trainer has expertise on the subject matter. The training itself should combine theory with practice, allowing ample time for hands-on experience, as well as time for learners to share their experiences. Retention of skills learned requires that employees remain motivated. Suggested methods for managers to maintain momentum are to display interest in the skills learned and provide learners with the necessary resources on the job to continue honing their newly-learned skills. Follow-up sessions are necessary to reinforce learning through practice and refinement. Lastly, to solidify the transfer of training to the workplace, participants should be encouraged to document their training for inclusion in a progress report for their supervisors.

Based on Carver's philosophy, the online tutorial must then be designed to allow time for the users to test their skills and receive feedback that will encourage their cooperation and participation in utilizing this training method. This could be accomplished by creating a tool that both instructs and assesses learning. Following this methodology, a tutorial would make an excellent starting point for training, allowing time for trainers to examine tutorial results and customize in-person training to those elements in need of clarification and reinforcement. Staff could also intermittently use the tutorial for self-assessment, by revisiting the tool, and measuring their progress by comparing their results over time.

2.2 Staff Development: Core Competencies

A strong library training plan is built upon a foundation of core competencies expected of all staff. The following core competencies were identified by the University

of Nebraska-Lincoln Libraries: “analytical skills/problem solving/decision making, communication skills, creativity/innovation, expertise and technical knowledge, flexibility/adaptability, interpersonal/group skills, leadership, organizational understanding and global thinking, ownership/accountability/dependability, planning and organizational skills, resource management, and service attitude/user satisfaction,” as noted in McNeil and Giesecke (2001, p. 51). The authors also include an excellent set of sample interview questions for each of the core competencies. These questions could potentially serve as a useful tool for members of hiring committees and immediate supervisors.

Ideally, a staff training tutorial would include questions addressing these competencies as well. For example, tutorial users could be asked how they would respond in a variety of patron transactions as well as staff encounters designed to measure their decision-making and communication skills, creativity, adaptability, accountability, and organizational and leadership abilities. These responses could then be analyzed to determine an individual’s core competency levels or potential for improvement.

Two very important documents were created by the Reference and User Services Association (RUSA) (2003; 2004) and reside on the American Library Association (ALA) Web site. The first document outlines the professional competencies for reference and user services librarians, and the second lists the behavioral guidelines for reference and information service providers. Approved in January 2003, the competencies are listed under five broad categories: access, knowledge base, marketing/awareness/informing, collaboration, and evaluation and assessment of resources and services. Providing access

to patrons is accomplished through the librarian's responsiveness, organization and design of services, critical thinking and analysis. Knowledge base is all-encompassing, and includes the basic structure of information resources, thorough understanding of information seeking behaviors, copyright issues, and information competency standards. The librarian is expected to stay current in the field, apply and share knowledge, and participate in active learning. Within the realm of marketing/awareness/informing, a librarian must be competent in assessment, communication and outreach, and evaluation of reference and information services. Collaboration has become an extremely important endeavor for librarians in the twenty-first century. Alliances with colleagues, members of professional organizations, and outside agencies must be strengthened for the purpose of enhancing services for library users. Lastly, librarians need to evaluate and assess both their resources and services. This includes surveying user needs and well as the delivery of services by the service provider (Reference and User Services Association [RUSA], 2003).

Competencies, as defined by RUSA (2003), are "behaviors that excellent performers exhibit more consistently and effectively than average performers" (Introduction section, ¶ 4). The concept of "behaviors" is an important distinction, in that assessment of competency is dependent upon observing these behaviors. Expectations for the development of these core competencies can be introduced in an online tutorial, but measurement of their existence remains challenging according to RUSA. Therefore, the tutorial should be considered one of many instruments utilized to measure core

competencies, in addition to user surveys, self-assessments, peer observations, and perhaps, instruments yet to be devised.

According to Gatten and Radcliff (as cited in RUSA, 2004), the *Guidelines for Behavioral Performance of Reference and Information Service Providers* “currently enjoy widespread acceptance as standards for the measurement of effective reference transactions” (Introduction section, ¶ 1). Originally written in 1996 to address face-to-face reference encounters, these guidelines were revised in 2004 to include remote reference. Five behaviors are identified as standards for library personnel: approachability, interest, listening/inquiring, searching, and follow-up. These categories are further delineated by specific actions that exemplify each of these behaviors. Having been embraced as standards nationwide, these behavioral guidelines provide an excellent structure upon which to build an online module focused on the Reference Interview and Referral Process, as these behaviors, according to RUSA (2004) apply “to all who provide reference and informational services directly to library users” (Introduction section, Note).

2.3 Effective Training Programs

Weaver-Meyers (2001) outlined a nine-step instructional design process. Specifically, they are: “analyzing needs, describing the task, analyzing the task, writing objectives, developing tests, formulating instructional strategies, sequencing, developing materials, and preparing evaluations” (Weaver-Meyers, p. 126). This methodology allows the trainer to explore parameters within a structured environment, while adhering to a consistent and proven framework. The author differentiates between three types of

tasks: action, cognitive, and creative, and identifies the skills necessary to complete them as motor, cognitive, and attitudinal. An analysis of the five areas of training identified by KISTT revealed that four of the areas (facilities orientation, navigating the library's Web site, knowledge of patron information, and reserving a computer), involve cognitive and/or motor skills. The reference interview also requires attitudinal skills, and it would best be taught first through the online tutorial, and then supplemented with in-person training in the form of shadowing and role-playing.

A step-by-step guide created by McDaniel and Ohles (1993) details planning for the orientation, training, and evaluation of library paraprofessionals. Topics addressed in this plan provide a general overview of all aspects of the job, including introduction to the physical layout of the library, the library's organizational chart, personnel policies and procedures, location of collections, the Reference and Information Desk, telephones, equipment, teamwork, problems/ complaints, public service policies, emergencies, and knowledge of other departments (McDaniel & Ohles, p. 42). These topics constitute an excellent outline of issues to be addressed during the orientation of new employees. These issues, with the exception those relating to emergency procedures, could be incorporated into Module One of the staff training tutorial, "Faces and Places."

Justification for the time and expenses necessary to create training programs relies heavily on the evaluation of the instruction provided. Todaro (2001) clearly outlines the importance of evaluation to the success of the program, essentials that must be present in the evaluation, and general tips for assessment. She identifies four elements to be used in evaluating all or most activities: reaction, learning, behavior, and results (Todaro, p. 156).

Each element is further defined by a series of questions and statements that trainers should use when creating assessment instruments. Staff reaction or feedback should be gathered for use in modifying the training tool. The assessment of learning specific skills would be recorded and used in staff performance evaluations to denote progress, documenting whether the staff member has “learned or exhibits or demonstrates improvement” (Todaro, 2001, p. 157) in helping patrons use the reserve-a-computer system. Perhaps the most difficult to measure are behavioral outcomes or the expectation that a change has occurred in a staff member’s behavior based on the training provided. Todaro recommends looking for signs that a staff member is taking on more responsibility, planning activities, taking advantage of learning opportunities, and demonstrating initiative as indicators that behavioral growth has occurred. Lastly, the measurement of results is focused on the big picture. Results of the training provided should indicate that the objectives of the training were met. For example, if improved customer service was the objective, then a comparison of patron perceptions prior to and post training, such as the Childers (2004; 2006) reports, could be used to assess the success of the training program. Todaro’s chapter concludes with a “master list of organizational documents that should include statements of staff development commitment” (p. 159) including job descriptions, advertisements, goals, budgets, reports, and analysis tools.

Although Hirko and Ross’s (2004) book focuses on virtual reference training, they address the advantages of in-person and online training, as well as individual and collaborative learning styles (p. 24). Their argument supports the premise that offering a

combination of training methods will ultimately increase the potential to reach individuals with multiple learning styles, thus strengthening the case for combined online and in-person training. Particularly relevant is their attention to curriculum usability in their “anytime, anywhere answers” work in regards to both content and online design. The authors suggest involving developers with “differing library experience and expertise” (Hirko & Ross, p. 39) in the initial stages of creation. Unfortunately, the KISTT does not represent a diverse mix of personnel, as it is composed solely of support staff. However, Hirko and Ross (2004) also had limited diversity in the initial planning stages, with a team of two public librarians and a library school intern. To counteract any limitations in their curriculum development, they tested their product in a wide variety of ways on a wide variety of users. This methodology was also employed for the purposes of testing the King Library Reference Interview and Referral Process module to gather comprehensive feedback. Another important component of the Hirko and Ross program comes from the cumulative effect of a training plan spanning five weeks. Ideally, newly hired employees would benefit greatly from prolonged immersion training, allowing ample time for reflection, reinforcement, and honing of skills.

2.4 Online Tutorials and Web Sites

Webster and Webster (2001) state that “availability, consistency, self-pacing, ease of integration, adaptability through immediate updates, usefulness as reinforcement tools, and efficiency of delivery” are the advantages of online tutorials as a mode of instruction (p. 129). The authors recommend a three-step process to follow when creating online tutorials: (a) assessment, (b) organization and computing structure, and (c) preparation of

the tutorial. The assessment should include “analyzing the organization, analyzing the tasks to be accomplished, and analyzing the staff’s current skill level and abilities” (Webster & Webster, p. 130). Fortunately, several consultants have already provided ample data on the King Library organization itself. The tasks or skills to be taught have been decided by the KISTT committee in consensus, based on committee members’ experience and employees’ input. Lastly, for staff to be hired at King Library, the interview process, resumé, and job description serve as a barometer of the baseline skill levels and abilities of the average newly-hired employee. Since members from the SJSU Information Literacy Program began creating tutorials in 2002, the software and hardware necessary for tutorial creation has been available to the tutorials project manager. Webster and Webster (2001) include content, language, design, testing, and maintenance of the tutorial as the final step in the process. This methodology has been ongoing for all SJSU tutorials since 2002, and it includes testing with various versions of browsers and operating systems, and multiple testing sites.

Viggiano (2004) investigates the effectiveness of online tutorials. She discovered that although few studies exist on the topic, the majority of those conducted have determined that online tutorials are at least as effective as face-to-face instruction. The author reviewed 34 online library instruction tutorials for interactivity and determined that all but three had “interactive games and quizzes that provided an immediate response to the student” (Viggiano, p. 44). Since interactivity is one avenue for providing hands-on instruction, Viggiano’s report provides additional support for Carver’s (2001) claims that hands-on time significantly increases the trainees ability to transfer skills and retain

knowledge. The author also tackles the problems inherent in distance education, and suggests other modes of instructional delivery, including videoconferencing, for learners who prefer to make a visual connection with the trainer. According to Viggiano (2004), a staff training tutorial geared toward improving the user's skills is itself a surrogate trainer, or replacement for in-person training. To simulate the interaction experienced in a live situation, graphics, animations, and video-streaming may be employed in the online tutorial to communicate the skill being taught and enhances the overall learning experience.

Poole, Grieco, Derck, and Socash (2001) reveal that the Harvey A. Andruss Library at Bloomsburg University in Pennsylvania employs a large number of student assistants to perform basic library functions at its circulation desk. Due to the practice of hiring a rotating workforce, it faces training issues similar to those of the King Library: staff turnover and scheduling difficulties, resulting in inconsistent training and varied levels of competency at service points. To solve this ongoing problem at the Andruss Library, an interactive tutorial was created to teach the basic skills that all staff at the circulation desk should possess. "The program provides interactive examples and presents ordinary scenarios associated with the circulation desk, which gives the students a chance to encounter common tasks without any real consequences occurring if a mistake is made" (Poole et al., p. 538). Each lesson in the tutorial has a final assessment. In order to be ready to perform their duties at the circulation desk, student assistants must score 75% or higher on the assessment. The authors report that this tutorial has freed up

supervisors from repetitive training, and improved the level of service at the circulation desk.

Three online reference training guides served as useful models for creating the Reference Interview and Referral Process module for the King Library's staff training tutorial—*ORE on the Web* (Ohio Library Council, 2005), *Reference 123* (Houston Area Library System, 2005), and *STAR Reference* (Nebraska Library Commission, 2005).

The *ORE on the Web* (Ohio Library Council, 2005) tutorial is divided into six modules: (a) overview, (b) interview, (c) people, (d) strategies, (e) resources, and (f) ethics. Overall, the content of this site is excellent and comprehensive. The idea of naming each module with a one-word title helps keep the tutorial simple. However, the design of the site itself is somewhat overwhelming, and could be improved if the subdivisions of additional links listed were not visible to the user, but rather available through pull-down menus from their respective main pages. Some of these additional links lead to Ohio Library-specific pages, whereas others lead to outside organizations, such as the ALA. One very useful link in this tutorial leads to a "Supervisor Tips" page, which is a guide for the supervisor to consult before assigning the modules to their employees. A similar page for King Library supervisors should be created before the module is put into library-wide use.

Each of the six modules has the same format: an introduction highlighting the concepts the module will teach, content, review, quiz, and an answer key. Of particular interest is the content of the second module, "Interview," which teaches the user how to conduct a reference interview. The content of this module is subdivided into eight

sections: (a) interview defined, (b) paraphrase, (c) open questions, (d) clarify, (e) verify, (f) six pieces of evidence, (g) remote, and (h) follow-up/ending the interview. Also, the “evidence” subdivision in the second module presents a list of six outcomes that should be evident to the library employee by the conclusion of the reference interview: (a) purpose or reason the information is needed, (b) deadline for gathering and using the information, (c) type and amount of information needed, (d) who or how knowledgeable is the user, (e) where the patron heard about this, and (f) the basic question, or what the user really wants to know. This list of reference interview outcomes is an excellent means for the trainees to self-check their ability to properly conduct a reference interview. Although the overall content of this tutorial is similar to that found in the RUSA (2004) behavioral guidelines, this site is unique in its inclusion of examples for each activity and the addition of a one-sentence encapsulation of the each section, titled “major point.”

The *Reference 123* tutorial (Houston Area Library System, 2005) contains three modules: (a) Who are the people?, (b) What are the questions?, and (c) Where are the answers? The section on reference interviews is found in the second module which contains seven subdivisions: (a) interview, (b) behaviors, (c) barriers, (d) paraphrasing, (e) open questions, (f) clarifying and verifying, and (g) evidence. Like *ORE on the Web*, this tutorial also contains a review of the content and a quiz, lists the six pieces of evidence resulting from a proper reference interview, and borrows heavily or directly from the RUSA behavioral guidelines. Likewise, its pages are overwhelming, also containing too many links which clutter the site, and lead to internal as well as external

Web sites. This site is unique in that each of the subdivisions clearly addresses both in-person and virtual reference.

Unlike *ORE on the Web* and *Reference 123*, *STAR Reference* (Nebraska Library Commission, 2005) does not have a busy interface, nor is it an interactive tutorial. It is simply a comprehensive online manual for conducting reference. However, it is equally overwhelming; the homepage requires the user to scroll down the page to discover that it contains 22 chapters of information. Despite the length of the main page, the subdivisions are clearly labeled with specific headings, allowing the user to locate detailed information on the topic in question relatively quickly. Like *ORE on the Web*, each of the subdivisions lists “one major point” that the user should retain from the tutorial, thus allowing the user to browse through the copious amounts of information to locate the focus of the section. Although this site is considerably different in its look and scope, it is worth considering because its style may appeal to learners who prefer books online to interactive Web sites.

3. ASSESSMENT OF STAFF TRAINING NEEDS

3.1 History of Training in the Combined University-Public Library

Although the King Library opened its door in August 2003 to the public, regular training for staff began approximately one year prior to this date. Whenever possible, training was a combined university-public library event and occurred in the buildings in which the public and university libraries were situated before relocation to the new King Library facility. Library-wide training included workshops on “how to deal with difficult patrons,” “coping with a changing work environment,” and the “reserve-a-computer” system. Unit-specific training was designed to increase the trainee’s familiarity with the resources located at and near the employee’s service desk, e. g. in-house manuals and handouts, the phone system, and special features unique to the floor of each service point. For example, the combined reference unit attended several training sessions taught by librarians from both institutions on their respective databases as well as the new online catalog service, Millennium.

Once the staff relocated to the new building, training efforts occurred weekly. For example, staff attended half-day workshops to learn about security, facility-related issues, and the new voice mail system. Service points throughout the library also hosted an open house to familiarize staff from other locations with their resources and services. Training at King Library since its opening has followed the same pattern, although the combining of services made it possible for SJSU staff to take advantages of training programs made available to the entire San José Public Library (SJPL) System, and for SJPL librarians to attend workshops hosted by SJSUL.

New employees of the SJPL undergo intensive day-long training sessions regardless of their placement in a branch or the King Library, whereas SJSU library employees tend to be trained by their unit according to its training plan. However, SJSUL has recently reinvigorated its efforts in staff development by establishing a committee for making recommendations on training and professional development. It is anticipated that continuity across service points will be established through the committee's creation of a staff training plan. One area where centralized training could be extremely effective is in the training of student assistants stationed at service points. Since there is no library-wide plan in place for centralized training of student assistants, supervisors must constantly repeat training as students come and go. The King Information Staff Tutorial (KIST) resulting from this thesis project will be extremely useful to all supervisors as a means of introducing newly-hired student assistants and staff to a solid base of information before training them in person on service point-specific tasks.

In the past year, a staff Intranet (SJLibrary Intranet, 2006c) for pooling resources from both entities was launched at the King Library. In addition to the library's policies and procedures, staff can also access unit statistics, meeting minutes, online training guides for the library's Web site, auto repair resources, and the California Libraries Catalog, a subset of WorldCat (SJLibrary Intranet, 2006d). This combined staff Intranet has been chosen as the most logical permanent location for accessing the King Information Staff Tutorial (KIST).

3.2 On-Site Observations

3.2.1 *Information Kiosk*

To ensure that the tutorial concentrated on the most relevant elements of training, a closer examination of the shared focus of the two support desks providing service was necessary. To gain a more thorough understanding of staff workload and patron inquiries at the kiosk, it best to observe both a typical and non-typical work day, according to the unit manager's suggestion. A non-typical work day is characterized as a day in which employees from only one of the libraries staff the major service points. Though some holidays are observed by both the university and the city public library, there remain a number of holidays the two entities do not share. Consequently, staff members throughout the building are needed to volunteer at the information kiosk to maintain the level of service expected by the patrons. What is important to consider in developing the staff training tutorial is that these "volunteers" may only work this desk a few times per year, and the tutorial may be their only available means to reacquaint themselves or get up-to-date information prior to staffing the information kiosk.

On February 20, 2006, the day the public library observes as President's Day, all branches of the SJPL were closed. Consequently, the only recourse available to public library patrons requiring in-person assistance was to visit the King Library, which remained open and staffed largely by university library employees and a reduced crew of part-time public pool librarians in Youth Services and General Collections. On this day, the thesis author worked the second chair on a 9:00 a.m. to 5:00 p.m. shift, with a rotating pool of volunteers from other units, and greeters from Access Services. Greeters were

stationed at the kiosk as well, but were expected to assist patrons with the self-checkout machines and circulation concerns.

For comparative purposes, the second day of volunteer work at the kiosk occurred on Tuesday, February 28, 2006. Having recorded the number of questions received, it became evident that holiday desk duty is far more chaotic than a “typical” work day, as patrons repeatedly phone to determine whether the library is open, and workers at the kiosk are “volunteers” who may only work this service point once or twice per year, and are therefore learning as they go. By comparison, according to Access Services Supervisor, Simone Williams (personal communication, December 15, 2005), staff who regularly work at the kiosk must take an “Info/Greeter Quiz” consisting of over 100 questions prior to service in that position. To improve the quality of service at the Information Kiosk by volunteers, it is recommended that service point employees throughout the library regularly spend time observing other service points. Also, unit supervisors should consider creating unit-specific modules to be added to KIST that could be assigned to volunteers prior to their service on an unfamiliar desk.

3.2.2 Reference Support Desk

Having served for 13 years on the SJSU Clark Library reference support desk, and eight months on the combined King Library’s reference support desk, the thesis author has extensive experience in an academic setting prior to the opening of the combined library. Even academic librarians with excellent reference desk skills experience a steep learning curve when being required to serve the needs of an entirely new population, such as public library patrons. In addition to adjusting to serving patrons of different age

groups, including parents, children, teens, and seniors, they must have an overall understanding of the types of resources available to assist the public, such as workshops, special programs, homework help, and readers' advisories.

Other necessary adjustments include learning to work with a referral form unique to the public library, as the university library's referral process in Clark Library is far more informal. Other training issues include opening/closing procedures for securing equipment and resources kept at the service point, and safety and emergency procedures, including evacuation protocols.

Support staff hired to work the reference support desk must observe and assist at the desk for several weeks before being allowed to staff the desk as the sole support staff member with a librarian. Staff members spend time learning how to serve patrons in-person, as well as fielding incoming phone inquiries. Training also includes studying the reference support binder at the desk which includes handouts, policies, and procedures, examining the reference collection, learning how to navigate the library's Web site, understanding the layout of the terminals on the floor, using the copiers and copy card machines, and touring the entire library in order to make proper referrals. In the past few years, newly hired staff members were also asked to complete the Library Basics tutorial (San José State University Library [SJSUL], 2003), which orients new college students to the areas in the King Library building that are focused on academic support.

3.2.3 General Collections

The majority of referrals from the information kiosk to other service points were mostly limited to the second floor reference desk and the third floor general collections

desk. Although the third floor desk staff were not targeted as potential users of the tutorial in this project, observation at this desk would be necessary to learn about its resources and referral methodology. With the approval of the senior librarian of General Collections, the thesis author observed at the general collections desk on a typical work day, Thursday, March 16, 2006.

Two major factors make the training and service at this point critical. First, the desk frequently has only one to two employees scheduled, one of whom may be a paraprofessional. Signage does not indicate the employee's professional status and consequently, patrons may wait in line assuming they are going to speak with a librarian, only to discover that they will be referred to the reference desk for assistance. Secondly, it is the only floor with one service point and a collection so large that it reaches to every corner of the farthest perimeters of the floor. Because General Collections has traditionally spent considerable time with every patron, it is not uncommon for a librarian to spend 15 minutes looking for a book in five different places on the floor, leaving the desk without a staff member to assist the growing queue.

This observation revealed other important training issues that would have gone unnoticed had this desk not been observed during the data gathering phase of this project. The General Collections desk is staffed only by public library employees. Many of the members of the General Collections Unit, have never worked on the reference desk on the second floor. Only one librarian from the Reference Unit has worked at both desks. Since the third floor is so vast, and the general collections are arranged as they are in a bookstore, the "feel" of the floor is like entering a completely separate building or a

branch library. Staff working solely in this environment could easily develop a “public library mindset” and assume that any patron approaching the desk who does not identify himself or herself as a college student is probably a member of the general public. For instance, if a 25 to 30-year-old male approaches the desk asking for statistics on child care, the staff member might assume that he is a father looking for statistical proof to substantiate his argument that one parent must stay at home during a child’s formative years. However, this same patron might be overwhelmed by an academic librarian at the reference desk who refers him to several statistical resources online under the assumption that the patron is writing a term paper for a child development class. Throughout their training, staff at all service points must be reminded of the importance of not making assumptions about patrons and of conducting a thorough reference interview before making recommendations.

3.2.4 Periodicals

The Periodicals Desk is located on the lower level of King Library. Since the SJSU Student Computer Center is also on this floor and in close proximity, referrals from other service points need to be accompanied by a map and a clear explanation of location and resources available. Compounding the difficulty of referrals to this desk is confusion both by patrons and newly-hired staff about where to find current versus older periodicals, print versus electronic journals, and scholarly versus popular magazines. This desk also assists with government documents retrieval and helps patrons searching local newspapers on microfiche for obituaries. Incorrect referrals to this unit have been recognized and cited by the Head of Access Services as a recurring problem and

disservice to patrons. Additionally, this desk is not staffed by a librarian, and the staff members at this desk are often put in the awkward position of having to make yet another referral to redirect patrons to the appropriate service point. It is highly recommended that staff at all service points undertake an extensive tour of this floor, and observe at this desk at least once per month.

On the day of observation at the Periodicals Desk, Friday, March 17, 2006, the traffic was considerably slower than it was at the Information Kiosk, the Reference Support Desk, or the General Collections Desk. Personnel working at the desk commented that Fridays were generally slower. However, the patron-staff interaction at this service point often involves teaching and assisting patrons with the use of a variety of media equipment, including microfilm and microfiche readers and the print-from-disc station. Consequently, the transactions can entail a considerable investment of time by the staff as well as repeated follow-ups to ensure that the patron's information needs were met. Technical training is extremely important for personnel working at this service point, and equally important is the training of desk staff to keep alert to a queue forming at the desk while they are performing triage amongst the media equipment.

3.3 Service Point Statistics

Using a patron transaction inquiry form based on the system of query classification developed by Warner (2001), patron transactions are recorded and coded by King Library service point staff for one week each month. Questions are divided into four categories: non-resource based (Level 1), skill-based (Level 2), strategy-based

(Level 3), and consultation (Level 4) (Warner, p. 53). This information is then used to analyze staffing patterns appropriate for reference and information services.

Few comprehensive reports of patron transaction inquiries have been posted to the staff Intranet at this point. However, one week in October 2005 was recorded by all major service points and will be used to demonstrate the need for training at major service points (SJLibrary Intranet, 2005b). Since the focus of this tutorial is in-person transactions, the statistics cited below will not include remote transactions.

Paraprofessionals at the reference support desk answered 82 Level 3 questions, and three Level 4 questions during that same week in October (Appendix B). What is interesting to note is that 71% of the Level 3 questions were answered by SJPL support staff and only 29% were answered by SJSU support staff and student assistants. It appears that compared to their SJPL counterparts, SJSU employees are more likely to refer strategy-based questions to the librarian at their adjoining desk.

The General Collections Unit does not divide its statistics by support staff desk versus librarian's desk. Consequently, it is not possible to determine what classification of library personnel answered the 69 Level 3 questions in October 2005. However, no Level 4 questions were reported despite the fact that librarians at the General Collections desk do occasionally perform what might be considered consultations given the complexity of the question and the length of time necessary to successfully complete the transaction.

Perhaps what is most interesting to note is that the Periodicals Desk only reported answering Level 1 and 2 questions. According to the statistics available, this means they

were the only desk in compliance with the administration's guidelines about referrals of Level 3 and above questions to librarians by support staff.

A less formal approach to statistics gathering was also used during the observation periods at the Information Kiosk, Periodicals Desk, and General Collections Desk. During a relatively "typical" eight-hour day at each of these desks, questions asked by patrons were recorded in an effort to gain a better understanding of the number of complex questions typically asked at each desk. As expected, due to its location on the first floor of King, the busiest desk of the three was the Information Kiosk. On the first observation day, a typical day, 138 questions were recorded as being asked and answered. This is not an exact count, given the fluctuating nature of patron traffic patterns. As might be expected between the first and third floor, only 86 questions reached the General Collections Desk, which may indicate that the staff at the Information Kiosk do manage to catch those questions that might otherwise have been withheld until the patrons encounter the next service point on their route. What is also interesting to note is that only eight patrons came to the General Collections Desk between 12:00 p.m. and 2:00 p.m., whereas from 2:00 to 3:00 p.m., 14 patrons received assistance at the desk. This increased to 15 patrons between 3:00 and 4:00 p.m., and 16 between 4:00 and 5:00 p.m. This pattern seems to support the notion that the third floor desk is also perceived by patrons as being more like one of the branch libraries, because afternoon traffic tends to attract high school students and seniors there.

As was mentioned earlier, the Periodicals Desk reported being slower than normal on the day of observation. There were no questions between 9:00 and 10:00 a.m., and

from 10:00 a.m. to 1:00 p.m., there was only one question per hour. Between 1:00 and 3:00 p.m., ten questions were asked and answered. The last hour, 4:00-5:00 p.m., was the busiest hour of the day, with seven questions being asked and answered. Staff members working this desk were very well-trained, courteous, and capable of handling all situations with equipment, as well as helping patrons locate periodicals and juvenile books.

The data gathered for this assessment of training needs indicate that both the university and public library staff would benefit from a uniform approach to training. Ideally, a combined university-public library staff development committee could examine tiered services and the corresponding training needs for each member of the unit. With a unit-specific staff training module as its base, each service point could begin the training process with online training, followed by a tour of the facility to learn about the resources of the unit. Then, the staff member could shadow or observe a seasoned employee carrying out desk duties at their assigned service point for a length of time set by the supervisor. Next, they could spend a few weeks assisting at the service desk. At this point, staff members may retake the tutorial to assess their progress by comparing their scores to the initial completion of the staff tutorial. If the supervisor deems that the scores and responses have reached a satisfactory level, the new employee could be scheduled to staff the desk independently in designated hours.

4. PROJECT DESIGN AND METHODOLOGY

4.1 Goals and Learning Objectives

Based upon the staff's training needs, the following goals and learning objectives were established to guide the creation of Module 4 of the King Information Staff Tutorial, the Reference Interview and Referral Process:

4.1.1 Goal 1

To teach library support staff the basic methods and philosophy used to conduct in-person reference interviews, as stated in the RUSA (2004) behavioral guidelines. After completing the Reference Interview and Referral Process module support staff should be able to:

Objective 1.1. Conduct an in-person reference interview using the following behavioral steps: appearing approachable, showing interest, listening/inquiring, searching, and following up.

Objective 1.2. Understand the connection between in-person service point specific training (i.e., using the library catalog, library Web site, handouts, and other resources) and adherence to the RUSA behavioral guidelines.

4.1.2 Goal 2

To educate library support staff on making appropriate referrals based on the King Library's patron transaction statistical form. After completing the Reference Interview and Referral Process module, support staff should be able to:

Objective 2.1. Recognize the difference between non-resource based or directional questions (Level 1), skill-based or technical skill questions (Level 2), strategy-based questions (Level 3), and questions requiring a consultation (Level 4).

Objective 2.2. Refer Level 3 and 4 questions to a librarian, based upon the understanding of question levels.

4.2 Content

One method for addressing the decrease in ratings for customer service evident in the Childers reports is to improve the reference interviews conducted at service points. Examination of the online staff tutorials *ORE on the Web* (Ohio Library Council, 2005) and *Reference 123* (Houston Area Library System, 2005) reveals a shared foundation of the RUSA (2004) behavioral guidelines. Goal 1 of this module is to educate library support staff members on the basic methods and philosophy used to conduct an in-person reference interview. As RUSA's behavioral guidelines have gained nationwide acceptance as a standard, they were also used as the basis for King Library's Reference Interview and Referral Process module. Following the guidelines, staff members learn the importance of approachability, showing interest, listening and inquiring, searching, and follow-up. Since measuring a staff member's ability to adhere to behavioral guidelines is difficult, it is important to note that staff members who conscientiously follow up with a patron are conducting an on-the-spot self-assessment, as the follow-up is designed to determine whether the patron's information need has been met. Reinforcing staff members' understanding of the importance of the follow-up step is an excellent tactic for improving customer service.

The second half of the module was designed to achieve the goal of educating library support staff to make appropriate referrals based on the King Library patron transaction inquiry form. By October 2005, King Library had been open for two years and these Level 1-4 patron transaction inquiry forms were being used on a regular basis. Although being aware of the referral procedures, paraprofessionals at the Information Kiosk (which includes the greeter's station), reported answering 19 Level 3 questions and four Level 4 questions in the preliminary survey. It is difficult to tell from the entries on the patron transaction form whether complex functions occasionally performed at the nearby circulation desk could be considered Level 3 or 4, or whether non-reference strategy-based questions can only be considered as Level 1 or 2. Consequently, either the form needs to be revised to include examples of Level 3 and 4 questions that may occur at service points other than reference, general collections, and special collections, or regular training about the referral process needs to be conducted.

Completing the patron transaction form requires staff to analyze questions and appropriately categorize the level of expertise necessary to properly answer or refer them. Since the introduction of these forms in fall 2003, staff members have expressed confusion over a clear delineation between levels. If the line between Levels 2 and 3 questions were clearly defined, in theory, staff members would have no problems knowing when to refer a question to a librarian.

To help staff achieve Goal 2, two strategies were employed in the tutorial. First, the trainee encounters a chart that explains the difference between the four levels of questions by specifying the level, type, and category description of each question, and

giving examples (Appendix C). This chart is based on Warner's (2001) question levels, and it is featured on several of the King Library activity survey forms used to collect statistics, including the Individual Activity Count, Service Point In-Person Activity Count, and Service Point Remote Activity Count (SJLibrary Intranet, 2006a). The trainee is asked to study the chart of question levels and then proceed to the Questionometer.

The Questionometer is a teaching tool and constitutes the second strategy used to help the trainee differentiate between question levels. The Questionometer presents the trainee with a list of questions prompting them to select either Levels 1, 2, 3, or 4 to categorize each question. They are then encouraged to select every level for every question, as the system provides immediate feedback as to why the question has or has not been properly categorized (Appendix D). Reading every response for each question aids the trainee in honing their critical thinking skills and understanding the method behind the categorization of question levels. The trainee does not receive a score during this portion of the module, as it was designed as a teaching instrument and not as a test. However, the Questionometer can be considered a means of self-assessment by the trainee to test their understanding of when it is appropriate for them to answer a question, and when they have reached the point of referral in the reference interview process.

4.2.1 Pre-Quiz

A pre-quiz can be designed for a myriad of reasons, including screening out candidates without adequate knowledge or skills, determining what training an employee still needs, and assessing an employee's potential for growth. Because the King Library tutorial will only be utilized by those already employed, and since completing a pre-quiz

takes additional time and simply delays access to the tutorial content, the notion of a pre-quiz was discarded. Instead, those employees who score low on the quiz after completing the tutorial have the option to revisit the tutorial and retake the quiz until their score improves. Also, since the tutorial is considered part of a process which includes retakes and in-person training, all employees can benefit from revisiting the tutorial after a leave of absence, when policies or procedures change, when new technology is introduced to the library, and when any other significant changes are made to the tutorial content.

4.2.2 Final Quiz

The quiz for Module 4 is divided into three parts. Part A is a list of thirteen questions; the trainee must select the correct answer from five possible choices. The questions are designed to determine whether the user knows how to conduct a proper reference interview and if the user is adhering to the RUSA (2004) behavioral guidelines. The trainee is asked to choose the most appropriate first response library personnel should make to a patron's question. Once the trainee submits his or her answer, the system generates immediate feedback so that the user can continue to learn as they complete the quiz. Part B contains 15 two-part questions, similar in content to Part A. However, instead of choosing from a list of possible correct answers, the trainee is asked to type in his or her first response to a patron's question. Then, the trainee is asked to answer "yes" or "no" as to whether the interview should continue. If the answer is "yes," the trainee is then asked to type in the next response or question to be asked of the patron. It is expected that the feedback given in Part A of the quiz will help the trainee to construct reasonably sound responses in Part B.

Though Part B is not scored, the data is stored in the system and can be retrieved with a query by the tutorial manager. It is anticipated that Part B might be especially useful for new employees to hone their reference interview skills by taking the tutorial within the first few weeks after being hired, then repeating this portion of the quiz within the first six months of working at a service point. The employees could then review their responses to questions in Part B from both sessions with their supervisor and discuss the differences and similarities between their responses within the 6-month interval, their goals, the supervisor's expectations, and areas that have improved or require improvement.

Part C consists of six questions designed to elicit feedback from the trainee to help improve the content and design of the tutorial. It is not graded. However, it is strongly recommended that the committee responsible for maintaining the tutorial access these suggestions on a regular basis to determine how successful the tutorial is as a learning tool. Once the trainee completes Part C, his or her score for Part A is displayed on the screen and sent to an e-mail address of choice so that it can be saved for comparison with future retakes.

4.3 Graphic Design

Considerations for graphic design were based on a combination of the profile of the user population and physical characteristics of the King Library building. An examination of the staff employee list reveals a diverse population, with employees speaking a large variety of languages. The library facility itself has a modern, minimalist appearance. Jointly, these concepts resulted in a graphic design utilizing a multicolored

palette of clean and simple lines and figures. It was determined that this image could be best achieved by using a variety of universal symbols to support the text. Through Flash animations, these symbols engage the user in various activities while keeping him/her focused on the content. Software used to design this module included Adobe Photoshop Creative Suite, and Adobe Illustrator. The graphic design is in compliance with the library's internal Web page style guidelines (SJLibrary Intranet, 2006e).

4.4 Data Storage and Extraction

Staff members access KIST through an external link from the staff Intranet (SJSUL, 2006a). They complete a short registration form designed to store their individual information in multiple tables on an Oracle database. The front end user interface prompts a staff member to enter his/her unit name, job title, e-mail address, immediate supervisor's name, and length of time employed by the library. After completing the module, the staff member is directed to take the accompanying quiz. As the staff member submits each answer to the quiz, it is immediately sent to the database to be stored and later used to calculate his/her final score. Once the answer to the final question is submitted, the scores are displayed for printing, and also automatically sent to the trainee's e-mail account. The tutorial's back end is designed to allow for retakes of the quizzes and to store and display the staff member's cumulative scores in the form of a progress report. The quizzes were created using the following programming languages: JavaScript, PHP, HTML, and CSS. SQL was used as the database's structured query language. The tutorial is deployed on Apache Server, and data is stored in an Oracle 9i database.

5. USABILITY TESTING AND ASSESSMENT

5.1 Preliminary Testing

Usability testing of the Reference Interview and Referral Process module was conducted in two rounds. The initial round of testing was done with seven currently enrolled San José State University School of Library and Information Science (SLIS) graduate students who had completed the Library 210 reference course, and were not currently employed by the King Library. This round of testing commenced on May 6, 2006, and concluded on May 14. The second round of testing began on May 16 and finished on May 29, 2006. For this round, the module was tested by five newly-hired employees of SJSUL and SJPL. All human subjects completed an online consent form before participating in the preliminary testing of the tutorial.

Table 1. *Part A Quiz Results for Rounds 1 and 2*

Subject #	Round 1 Quiz Score %	Round 2 Quiz Score %
1	84	100
2	38	69
3	53	46
4	76	61
5	38	61
6	92	N/A
7	30	N/A

As stated earlier, the quiz for Module 4 is divided into three sections, parts A, B, and C. As shown in Table 1, participants' scores during the initial round of testing for Part A (Appendix E) ranged from 30% to 92%, with an average score of 58.5%. None of the members work at the King Library, which could account for the relatively low scores. Also, this was the first group to test the module; their feedback was used to make several

changes to the tutorial which may have benefited the subsequent test group (who achieved higher scores as they encountered an improved tutorial).

The newly-hired library employees in the second round of testing scored from 61% to 100% on Part A, with an average of 67.2%, slightly higher than that of the initial round. Since it is anticipated that newly-hired employees will retake the tutorial after being employed for six months, the quiz can be used to measure the employees' progress not only in absorbing the tutorial content, but also in learning from working at their service points.

One of the most important questions to ask when a patron is looking for a book or journal is "Do you have a *specific* title in mind?" The significance of this question is not emphasized in the RUSA (2004) behavioral guidelines, but it can be one in a series of questions library staff ask during the listening/inquiring step of the reference interview to determine the patron's information need. Part A (Appendix F) of the quiz was strategically designed to reinforce this behavior during the reference interview process. The correct answers for Part A questions #1, #2, #4, and #10 all contained the word "specific" (see Table 2). Interesting to note is the subjects' responses to the questions as they encounter and observe the repetitive pattern of answers containing the term "specific." During the initial testing, in response to Question #1, two subjects chose the answer containing "specific." To Question #2, three subjects chose the correct answer with the term "specific." By the time they reach Question #4, it appears that the participants have deduced the pattern. As a result, five of the seven subjects selected the choice of the response "are you looking for a specific title?" Participants encountered

this choice again in Question #10 several questions later. From the results, it appears that the subjects have learned the built in lesson, as six of the seven selected the answer containing the word “specific.”

Table 2. *Number of Subject Responses from Quiz Part A*

Selected Quiz Questions	Round 1	Round 2	Rounds 1 & 2 Combined
1. Where are the periodicals?			
A. The international magazines are on the 3rd floor.	0	0	0
B. They're all on the Lower Level.	1	2	3
C. Do you mean magazines or journals?	2	0	2
D. Are you looking for a specific title or are you trying to find information on a topic?*	2	3	5
E. Are you looking for print or electronic?	2	0	2
2. Where are your psychology books?			
A. They're in the BF section on the 6th floor.	1	1	2
B. They're on the 3rd floor in the 100s section.	1	0	1
C. Are you looking for a specific author or title?*	3	2	5
D. Is this for a class at San José State?	1	1	2
E. None of the above.	1	1	2
4. Where are your international magazines?	0	0	0
A. They're on the 3rd floor.	0	1	1
B. Are you looking for a specific title?*	5	4	9
C. They're on the lower level in periodicals.	1	0	1
D. Which country?	0	0	0
E. None of the above.	1	0	1
10. Where are your CDs?			
A. Are you looking for a specific title?*	6	4	10
B. Certificates of Deposit? They have them at most banks.	0	0	0
C. They're on the 1st floor.	0	1	1
D. They're on the 5th floor.	1	0	1
E. They're on the 3rd floor.	0	0	0

Note. * indicates the correct answer.

Comparatively, in the second round of testing, three subjects selected the correct answer to Question #1. However, only two subjects selected the correct answer for question two. The subjects made a quick recovery in answering the following questions, with four of them and selecting the correct answer to both questions #4 and #10 (see Table 2). Together, the results of both rounds of testing seem to reveal an upward pattern of learning judging from the count of correct answers to each question. Five subjects answered Question #1 correctly, five answered Question #2 correctly, nine answered Question #4 correctly, and 10 out of 12 answered Question #10 correctly. This upward pattern suggests that the structure of the quiz works well in supporting the dual functionalities of measuring the trainee's knowledge and reinforcing learning.

As mentioned in Chapter 4, the Questionometer is a teaching tool designed to help staff learn to differentiate between reference questions of Levels 1 through 4. Before starting the Questionometer, users are encouraged to read all the responses for each category of question to learn why a particular reference question might be categorized as such. To reinforce trainees' understanding of the differences between each level of questions, the same questions from the Questionometer are reintroduced in Part B (Appendix F) of the quiz, with the following instructions:

You may recognize the following questions. You've already encountered them when you explored the Questionometer. Now, we'll be approaching them a little differently. After reading the patron's question you will be asked to type what response(s) you would make if you were working at the reference desk. Please limit your questions/answers to 1 or 2 sentences. (SJSUL, 2006a)

Selected responses from Part B (see Table 3) of the quiz indicate that subjects applied appropriate reference interview skills when generating their own response to a

patron's question. Again, the subjects were asked to indicate "yes" or "no" as to whether they would ask the patron a follow-up question. Then, they were instructed to include the follow up question. Nearly all subjects offered to demonstrate how to use the online catalog, thus adhering to the RUSA (2004) behavioral guidelines of empowering the patron by teaching the sources used to conduct an appropriate search.

Table 3. *Selected Subject Responses to Part B, Question 4*

STAFF MEMBERS' RESPONSES TO PATRONS' QUESTIONS:			
Round 1			
SUBJECT #	FIRST RESPONSE	MORE?	FOLLOW-UP QUESTION?
1	Are you looking for a specific title?	yes	Let me check our online catalog ... here, I'll show you how you can do an author search.
2	Let's look in the catalog .	yes	Are you interested in novels or short stories?
6	I can check in the library catalog with you. Are you looking for any particular title?	yes	I would search with/for the patron and tell her where she can find the books in the library.
Round 2			
1	Are you looking for a specific title?	yes	If looking for specific title, perform title search and direct them to where the book would be located. If not looking for specific title, perform author search and show list of titles.
2	Yep. Any specific title?	yes	Let me look in the catalog and I'll tell you where they are.
3	Yes, I think we do. Let's check the catalog together.	yes	Show patron how to do an author search, then direct them to the appropriate area. Ask them to return if they have other questions.

The appropriate application of the RUSA behavioral guidelines is further evidenced by the subjects' responses to what appears to be a directional question (see Table 4). The tutorial content for Module 4 warns the user not to make assumptions about such questions, but to probe beyond the obvious and conduct a thorough reference interview by asking questions using terms such as "specific" or "particular."

Table 4. *Selected Subject Responses to Part B, Question 12*

Question 12: Where is Special Collections?

FIRST RESPONSE:

Round 1

Subject #

1	Is there a specific subject you're researching?
3	Are you looking for a particular title?
6	We have a number of special collections. Are you looking for one in particular ?

Round 2

1	Are you looking for a specific Special Collection?

Similar evidence of the teaching effectiveness of this module is found in the test results of Part B. In Question #8, the patron's inquiry is "Can I check out a laptop?" With the initial and second rounds of testing combined, eleven out of twelve subjects responded appropriately with "Are you an SJSU student?" from their memory of an earlier encounter with the same question in the Questionometer.

5.2 Modifications

Based on the results of preliminary testing of the quiz (Parts A and B), and feedback gathered from the participating SLIS students on Part C, adjustments were made to the module. When examining the responses from the initial round of testing an

error was found in the quiz design in connection with Question #13 of Part A: None of the seven respondents selected the correct answer to Question #13. The original version of Question #13 (as shown in Table 5) asks “Where are your peer-reviewed journals?” The subjects had five possible answers from which to choose, with the correct answer being E, “None of the above.” However, three of the choices (A, B, and C) included the question “Are you looking for a specific title?” It’s possible that the subjects assumed that the correct answer would contain the word “specific,” since similar answers are correct for Part A Questions #1, #2, #4, and #10, all of which contain the word “specific.”

Table 5. *Round 1 Version of Part A, Question 13*

Question 13: Where are your peer-reviewed journals?

Answer:	Round 1
A They're on the lower level. Are you looking for a specific title?	2
B Do you mean professional journals? Are you looking for a specific title?	4
C They're on the second floor. Are you looking for a specific title?	0
D Do you mean scholarly journals?	1
E None of the above. *	0

Note. * indicates the correct answer.

Two of the given choices to Question #13 are obviously incorrect (A and C), since the first part of the answer is wrong. However, one choice (B) was particularly confusing to the subjects. It read: “Do you mean professional journals? Are you looking for a specific title?” On the surface, this is a relatively legitimate response. However, the instructions for Part A of the quiz state the following:

IMPORTANT: Pick the best response a staff member can initially give in order to provide the best service possible. Some choices are wrong. Keep in mind that although your choice might appear correct, it might not be the *first* response you should give during the course of a reference interview. For the purposes of

scoring this quiz, the best response will be considered the correct response. (SJSUL, 2006a)

Choice B was initially not considered the best response because the patron had asked for “peer-reviewed” journals, indicating that he/she was looking for a particular category of publication. Asking the question “Do you mean professional?” is redundant because many faculty use the terms interchangeably when referring to a certain type of publication. Asking this question would indicate that the staff member was not really “listening,” which is the third step outlined in RUSA’s (2004) behavioral guidelines. However, in fairness to those subjects attempting to be “more thorough,” one could make an argument for the subject’s settling on Choice B by emphasizing that he or she was taking this answer to be a “rephrasing of the patron’s question,” while rephrasing *is*, in fact, a legitimate part of the reference interview process. To avoid this confusion in the second round of testing, Choice B was shortened to “Do you mean professional journals?” which is clearly not the first question to ask. This modification did result in two of the five respondents getting the answer right.

Table 6. *Round 2 Version of Part A, Question 13*

Question 13: Where are your peer-reviewed journals?

Answer:	Round 2
A They're on the lower level. Are you looking for a specific title?	1
B Do you mean professional journals?	1
C They're on the second floor. Are you looking for a specific title?	1
D Do you mean scholarly journals?	0
E None of the above. *	2

Note. * indicates the correct answer.

In the initial round of testing, an error in the instructions for Part B resulted in the subjects responding to all questions as if they were *librarians*, rather than *SLIS students*.

The original instructions asked the subject to respond to a patron as if they were the “librarian” working at the reference desk. Because of this error it was difficult to determine whether the subjects would have “referred” patrons asking Level 3 and 4 questions to librarians had the instructions not specifically cast the subject in the role of a librarian. This wording was corrected before the second round of testing by replacing the word “librarian” with “you,” thus allowing the participating staff members to answer questions according to their job classification.

Part C of the quiz was designed to elicit feedback from the subjects of the initial testing for the purpose of improving the module’s design. This part includes six questions (Appendix G). Responses to Question #1, “What information should have been included in this module?” are listed below:

- Explanation of the phrase “complex blues”;
- More on the difference between Level 2 & 3 questions;
- Suggestions on where staff could look for the answers;
- A similar module geared toward each branch library;
- Info on the Ask a Librarian service, more on other library services, searching in academic journals, and emergency information.

One change was made to the module based on this feedback. The phrase “complex blues” was removed because it is jargon specific to employees of the King Library Reference Unit, and therefore confusing to others. Although more could be added to explain the principles behind Level 1 and 2 questions, a better solution would be to plant a hyperlink to Debra Warner’s (2001) article and the forms (SJLibrary Intranet,

2006a) used in the King Library during the Levels 1-4 patron transaction statistics gathering process. Future improvements to this module could certainly be adding hyperlinks on “where to find the correct answers” and to branch-specific modules. Suggestions for more information on other library resources may also be incorporated into this tutorial.

Question #2 asks the subjects what they found to be the “most useful section of this module.” Responses include:

- Illustrations of the reference interview;
- Multiple choice part of the quiz (Part A);
- Examples of the question levels explained through the Questionometer;
- Description of the four question levels.

The above positive responses to the designer’s handling of the four question levels and crafting of the Questionometer suggests that the training module has met the Learning Objective (2.1) of teaching staff to differentiate between question levels.

Question #3 asks “What, if anything, would you change in the design or content of the Questionometer (the Level 1-4 teaching tool)?” A number of the respondents did not limit their suggestions to the Questionometer. Responses specific to suggestions for the Questionometer are:

- Add more Level 3 questions;
- Make it either 1 question per page, or all of the questions on one page;
- Save the score from the Questionometer to be displayed at the end.

All three suggestions are helpful and will be incorporated into the final version of the tutorial.

In Question #4 the subjects were asked whether they have learned anything new from this module, and if so, what. Responses were nearly equally divided between the following two points:

- Learned a lot of facts about King Library;
- Learned more about referrals and question levels.

These responses indicate that Learning Objective 2.2—“refer Level 3 and 4 questions to a librarian, based upon the understanding of question levels”—has been addressed in the tutorial content and design. In composing the quiz questions for Part A, a good deal of consideration was given to the consideration of which facts about the King Library should be included for reinforcement. The subjects’ responses indicate that creating a base of rotating questions for Part A could be very useful, as new policies and procedures are introduced to staff, new facilities open, and resources available to the public change. This will definitely be considered in future revisions of this module.

Question #5 asks “Should the final quiz be modified in any way?” Five subjects felt that the quiz was too long and ought to be made shorter. This seems to be a reasonable suggestion, and may be considered, provided that supplemental in-person training covers the points needed. Both a short version and a longer version of the same quiz may be provided for the staff to choose based on how much they’d like to challenge themselves, and/or how much in-person training they have completed already.

In Question #6 the subject is asked to offer any additional comments that they believe will help improve the module before its launch date. Responses to this question included:

- Background animation should be toned down so it doesn't interfere with the text;
- Add some interactive maps;
- The Reference Interview Process could be pared down to the essentials.

Before its official launch, the module will be reviewed to ensure that animations support, not distract from, the text. It is also possible that adding hyperlinks to appropriate library Web resource pages, including maps, would improve the overall learning experience. Although there is repetition in the RUSA (2004) behavioral guidelines, for the most part, the text was transferred verbatim into the tutorial. Therefore, decisions about reducing the content should be postponed until librarians have had the opportunity to provide feedback for the tutorial.

5.3 Browser Compatibility Testing

As with SJSUL's (2006b) publicly available tutorials, the King Information Staff Tutorial was tested by the SJSUL Information Literacy Program's Web developer for technical compatibility. The module was accessed through several versions of all major browsers. In Windows 2000, the tutorial works with Netscape 7.2, Mozilla 1.7, Firefox 1.0.4, Internet Explorer 6.0, and all their subsequent versions. For Macintosh users, the tutorial is accessible through Internet Explorer 5.2 and above, and Firefox 1.5.0.3. The tutorial was tested from on and off campus to determine if it had any network problems

or loading time issues, and it performed satisfactorily. The testing and modification process took approximately one week to complete.

5.4 Learning Outcomes

The assessment of learning outcomes is based directly on the goals and learning objectives of the tutorial as outlined in the previous chapter. Four learning objectives were proposed that address the question “exactly what should the staff member learn?” The challenge lies in determining how to measure the learning outcomes in terms of meeting the training objectives.

Objective 1.1 is being able to, “conduct an in-person reference interview using the following behaviors: approachability, interest, listening/inquiring, searching, and follow-up.” These behaviors are not uniquely tied to the use of this tutorial, but rather result from schooling, in-person training, workshops, and personal experience. However, this does not discount the possibility of the tutorial’s contribution to achieving this objective. Rather, the measures for determining the tutorial’s influence, regardless of whether they are quizzes or any other instruments, must be specifically tied to the tutorial’s content in order to assess the trainee’s understanding and to determine whether the learning outcomes have been met.

Adherence to the RUSA behavioral guidelines can be discerned from some of the responses to questions in the multiple choice portion (Part A) of the quiz. In Part B, the learning objective has been strategically integrated into the tutorial through specific sequencing of the questions (Appendix F). Rather than giving the trainee a pre-quiz, the Questionometer was employed to present 15 questions and ask the trainee to categorize

each question by its level. The trainee is encouraged to read every level's response to each question, thus absorbing potential responses for future use. Part A also eases the trainee into the quiz by virtue of its multiple choice style of questions. The trainee receives feedback after submitting his or her choice of answer, so that they continue to learn while being tested. This coaching is expected to prepare the user trainee to perform reasonably well in Part B when answering the same questions from the Questionometer. As stated earlier, Part B asks the trainee to respond in his/her own words. These responses are stored in the database, and can be made available to the trainee or the supervisor to help hone his/her reference interview skills when revisiting this quiz after a period of time.

Measuring the learning outcomes for Objective 1.2, "understand the connection between in-person service point specific training," can also be difficult to achieve. The 13 questions in Part A serve as a starting point in working towards this objective. Theoretically, by presenting the trainee with a variety of potential patron transaction scenarios, the tutorial is set to help the trainee achieve a cumulative effect in learning. Through selecting answers and reading the responses, the trainee is expected to make the connection between in-person service point specific training and adherence to the RUSA behavioral guidelines. The feasibility of measuring learning outcomes towards this objective may improve after other modules are added to the tutorial, modules that are structured to teach skills such as using the library catalog and exploring the library's Web site.

Although responses to Part B questions could be analyzed to determine whether the trainee understands the difference between question levels (Learning Objective 2.1), this determination could be better accomplished through adjusting the Questionometer. If the trainees were asked to make their best guess while using the Questionometer, their first, second, third, and fourth choices for each question could be recorded. If this information is stored in the database, the trainee can perform a self-assessment by retaking this portion of the tutorial after a period of time.

Trainees' learning progress towards achieving Objective 2.2, "refer Level 3 and 4 questions to a librarian," could also be determined by a combination of self-assessment based on responses in Part B and an altered Questionometer design. An alternative method is for the library to occasionally gather more detailed statistics on Level 1 through 4 reference interviews conducted by the employee including the original question asked and the question level assigned. Discussing such statistics at the time of the employee's performance review would also help him/her in setting personal goals for professional development for the coming fiscal year. As Malcolm Knowles states: "adults are accustomed to being in control and taking responsibility for their own lives" (as cited in Jurow, 1991, p. 2). The clearer the connection between an employee's training needs and his/her performance in relation to achieving the goals, the more likely that the employee will see the necessity of personal accountability and success in the work place.

Once the tutorial has been used by support staff and student assistants in Access Services and Reference Services, librarians should also test KIST and provide feedback

from their unique perspective as members of the same unit. Additionally, librarians may also wish to craft similar modules as part of their orientation training for newly-hired librarians.

6. CONCLUSION

6.1 Contributions, Limitations, and Pitfalls

From the research findings reported in numerous scholarly articles and firsthand experience with the SJSUL's information literacy tutorials for SJSU students, it is easy to see that the benefits of a staff training tutorial far outweigh its possible pitfalls. Benefits include the tutorial being used as an orientation tool for newly-hired employees and as a brush-up tool for all staff. Additionally, the information taught therein can be of use to staff at other library service points. It is recommended that the Reference Interview and Referral Process module serve as a prototype to be adapted by other units in the library for their training purposes.

Perhaps the burden of maintenance is the major pitfall of making an online tutorial part of the staff training plan. Staff will need to review the tutorial and update the content as policies, procedures, services, resources, and technologies change. It is recommended that teams from different units work together in developing modules related to their areas of expertise. For example, while at least one member of the Web team should be present on the team devoted to maintaining Module 2, the Library's Web site, members from service points who use the Web site regularly should also be included. These maintenance teams could rotate on a regular basis so that the workload remains evenly distributed amongst staff members. Also, even though the tutorial is an excellent resource for service point personnel, it cannot completely replace a program of supplemental, in-person training.

6.2 Recommended Enhancements for Module Four

This thesis project is focused on the creation of an interactive training tutorial for the King Library's support staff members who need to learn how to conduct in-person reference interviews and referrals. It is highly recommended that this module be expanded in future development to include telephone reference tips. This expansion should begin with the first point of telephone service, the King Library Call Center, which is responsible for screening incoming calls and making referrals. Additionally, should the library administration plan to assign this tutorial to new-hires or pool librarians, the tutorial's content would need to be rewritten to cover not only telephone transactions, but e-mail and live online reference transactions as well. Another possible enhancement might be to include some video-streamed examples of how to conduct a proper reference interview. Ideally, in-person training in the form of role play could be employed to supplement the use of this module, thus giving staff the opportunity to practice their reference interview skills in a live environment.

6.3 The Next Step

As mentioned earlier, it is recommended that the remaining four modules of the proposed online tutorial be completed and launched by the end of the fiscal year 2005-2006. Module One, Faces and Places, will feature photographs of the library facility, all service points, units, and individual staff members. Links to the King Library online floor plans (SJLibrary.org, 2006) will be added to introduce each floor along with its respective units, service point(s), and unique features. One way to expedite the development of this module is to build upon the already existing SJSU *Library Basics*

tutorial (SJSUL, 2003). Although it was designed to highlight the academic collection and services for first-year college students, supplementary content describing the public service areas (e. g., Youth Services, Teens Reach, Partners-in-Reading, General Collections, and the Friends Bookstore) and behind-the-scenes units (e.g., Interlibrary Services, Books Aloud) could easily be added.

In spring 2004, members of the King Library's Web team offered four training sessions to familiarize staff with the library's Web site. Features of the training materials included the various navigation paths that could be taken to arrive at any given Web page, and highlights of the services and resources offered by the King Library. This content has been made into a stand-alone tutorial available on the Staff Intranet (SJLibrary.org, 2006c), and it can also be incorporated into KIST. The tutorial may include instructions on how to use the Reserve-a-Computer system, the site map, the various Frequently Asked Questions (FAQ) library pages (including e-books, Distance Ed, General library FAQs). Additional content may include understanding the relationship between the SJSU Research Topics page and SJPL's Web Links by Subject, exploring the computer and printing Web pages, and highlights of the Staff Intranet.

How to assist patrons with questions related to their library accounts will be the focus of Module 3. To help library staff assisting patrons with the difficulty of coping with the two-library card system currently in use at the King Library, a matrix will be created to outline the categories of patron status and privileges as well as situations in which library cards and PIN numbers are necessary to complete a transaction.

The focus of Module 5 is safety and emergency procedures. Unlike the other modules, this module will cover not only general safety and emergency procedures applicable to all service points, but also procedures particular to each desk and its unit.

Questions that need to be addressed in the module include the following:

- Who is the Librarian in charge (Ranking Responsibility chart)?
- What are the procedures for nights and weekends?
- Where are the panic buttons located?
- Where are the emergency exits?
- Where do I go and what do I do when I must leave the building during an evacuation?
- What is my responsibility in helping clear the building during an evacuation?
- When do I call Library security or the University police instead of dialing 911?

It is recommended that in addition to related policies and procedures, the recently completed King Library Disaster Recovery Plan (SJLibrary Intranet, 2006b), available on the Staff Intranet, be used as a resource when creating this module.

6.4 SJSUL Training Plan

On March 8, 2006, the thesis author (also project manager of KIST) was appointed to serve on the SJSU Library Staff Training and Professional Development Working Group (PDWG) established by Dean Ruth Kifer. The working group has been charged with the responsibility of researching and proposing “a comprehensive plan for the professional development and training for library faculty and staff at all levels” (Kifer, personal communication, March 8, 2006). The success of this training tutorial is directly

related to its ability to its being viewed as an essential component of that plan. To ensure its effectiveness, the tutorial should be regularly evaluated by employees for its usability and currency. Ideally, one year after the tutorial is implemented and put in use by service point employees, a patron exit survey should be conducted to assess the tutorial's contribution to improvement of staff-patron interactions at public service points, targeting the nine staff service markers that were reported to have declined between 2003 and 2005 in Childers (2006). Also, those portions of the employee attitude survey (Da Silva, 2003, 2004a) that focused on staff training should be repeated to identify possible changes in employee attitudes. Altogether the survey findings should then be used for determining how the staff training tutorial has impacted the Library's public service.

It is also recommended that those personnel involved in staff development regularly assess employees' training needs and research innovative training tools available throughout the library community that might enhance the tutorials' approach to training. Lastly, designated staff will need to be in place to monitor and modify the tutorial's content, make suggestions for possible additions, schedule revisits, and assign modules as refresher courses when necessary.

It is the goal of this thesis project to contribute a vibrant educational tool to the array of instructional methods utilized by library personnel in training staff so that they can provide patrons with excellent and seamless service. With the library administration's endorsement, the next step is to market the tutorial to both supervisors and staff as a useful tool for sharpening their reference interview and referral skills. It is of critical importance that staff take responsibility for independent learning and

development, reflect upon the effectiveness of their current practices in providing quality service to our patrons, and recognize this tutorial as a means to empower themselves with the skills necessary to improve their job performance.

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APPENDIX A: 2003/2005 SERVICE QUALITY MARKERS COMPARISON

This data reflects the percentage of change in patron perception of service between spring 2003 and 2005, from most to least impact.

Question #	Question	Before Merger, Spr03	After Merger, Spr05	% Change
14	Staff understood what I wanted ("Strongly agree" or somewhat agree)	82.0%	64.0%	-18.0%
15	Staff gave information in language I needed ("Strongly agree" or somewhat agree)	76.1%	63.7%	-12.4%
17	Staff gave clear explanations ("Strongly agree" or somewhat agree)	76.5%	64.6%	-11.9%
16	Staff gave enough help or explanation ("Strongly agree" or somewhat agree)	76.7%	66.4%	-10.3%
19	Staff were courteous ("Strongly agree" or somewhat agree)	79.9%	69.8%	-10.1%
13	Staff were approachable ("Strongly agree" or somewhat agree)	75.7%	67.8%	-7.9%
20	Staff seemed interested in my question ("Strongly agree" or somewhat agree)	68.6%	61.5%	-7.1%
21	Staff seemed knowledgeable about my topic ("Strongly agree" or somewhat agree)	63.5%	56.6%	-6.9%
23	Value of services to me ("Excellent" or next to excellent)	86.7%	83.1%	-3.6%

(Childers, 2006).

APPENDIX B: OCTOBER 2005 IN-PERSON QUESTION LEVEL STATISTICS

	Greeters					Information Kiosk				
	Subtotals		Percentage		Totals	Subtotals		Percentage		Totals
	SJPL	SJSU	SJPL	SJSU		SJPL	SJSU	SJPL	SJSU	
LEVEL 1	245	80	75%	25%	325	404	140	74%	26%	544
LEVEL 2	91	45	67%	33%	136	148	48	76%	24%	196
LEVEL 3	9	1	90%	10%	10	3	6	33%	67%	9
LEVEL 4	0	1	0%	100%	1	1	2	33%	67%	3
Totals	345	127	73%	27%	472	556	196	74%	26%	752

	Reference Desk					Reference Support Desk				
	Subtotals		Percentage		Totals	Subtotals		Percentage		Totals
	SJPL	SJSU	SJPL	SJSU		SJPL	SJSU	SJPL	SJSU	
LEVEL 1	122	98	55%	45%	220	115	42	73%	27%	157
LEVEL 2	128	149	46%	54%	277	157	49	76%	24%	206
LEVEL 3	104	197	35%	65%	301	58	24	71%	29%	82
LEVEL 4	5	14	26%	74%	19	2	1	67%	33%	3
Totals	359	458	44%	56%	817	332	116	74%	26%	448

	General Collections					Periodicals				
	Subtotals		Percentage		Totals	Subtotals		Percentage		Totals
	SJPL	SJSU	SJPL	SJSU		SJPL	SJSU	SJPL	SJSU	
LEVEL 1	413	191	68%	32%	604	264	259	50%	50%	523
LEVEL 2	439	152	74%	26%	591	79	134	37%	63%	213
LEVEL 3	49	20	71%	29%	69	0	0	-	-	0
LEVEL 4	0	0	-	-	0	0	0	-	-	0
Totals	901	363	71%	29%	1264	343	393	47%	53%	736

APPENDIX C: LEVELS 1 – 4 PATRON TRANSACTION QUESTIONS

Level	Type	Category Description	Example
1	Non-resource based/ Directional	Does not require a resource to answer; might be answered by a sign or help sheet; usually answered at a service desk.	“Where are the copy machines?” “How late are you open on Friday?” “Where is the California Room?”
2	Skill-based/ Technical	Requires a demonstration to answer; most often staff members have to move to a location to demonstrate a skill; the same questions should always get the same answer.	“How do I add money to my tower card?” “How do I print my resume?” “Do you have any books by this author?” “How can I access the databases from home?” “How can I find a DVD in your catalog?”
3	Strategy-based/ Simple	Questions that require the formulation of a strategy to locate an answer and require selection of resources; may require individualized subject approaches.	“I need to find articles on cancer and nutrition.” “What are the side effects of this drug?” “I need some children's historical fiction that takes place during the Revolutionary War.”
4	Consultation/ Complex	Usually longer encounters outside of regular desk duty; the librarian will often have to research recommendations or prepare reports for consultation work.	“Can you recommend a list of Web sites with tutorials about evidence-based medicine?” “How do I research the origin of my property?”

APPENDIX D: SCREEN SHOT OF QUESTIONOMETER

APPENDIX E: PART A QUIZ QUESTIONS

1. Where are the periodicals?
2. Where are your psychology books?
3. Where is your Nursing librarian, Tina Peterson?
4. Where are your international magazines?
5. Where are your income tax forms?
6. Where is the IRC?
7. Which computers have Internet access?
8. Where is the Adaptive Technology Center?
9. Where can I browse "The Sacramento Bee"?
10. Where are your CDs?
11. I have call numbers for the books I need. Can you get the books for me?
(Note: This is a patron with a visual disability.)
12. How do I print out the microfiche I have borrowed from ILL?
13. Where are your peer-reviewed journals?

APPENDIX F: PART B QUIZ QUESTIONS

1. Where do I find articles on high school athletes and steroid abuse?
2. Where is the restroom?
3. How can I get to the Academic Search Premier database from home?
4. Do you have any books by Kate Chopin?
5. How do I reserve a computer?
6. Are you open on July 4th?
7. Where is the campus bookstore?
8. Can I check out a laptop computer?
9. What are your hours on Sunday?
10. How do I find the book *The Joy Luck Club* in the online catalog?
11. How do I use Reference USA to find a job?
12. Where is Special Collections?
13. How do I cite this book that I have?
14. I need something "scholarly" about the American Dream. Where do I look?
15. Where is the Bursar's Office?

APPENDIX G: PART C QUIZ QUESTIONS

1. What information should have been included in this module?
2. What did you find the most useful section of this module?
3. What, if anything, would you change in the design or content of the Questionometer (the Level 1-4 teaching tool)?
4. Did you learn anything new from this module? If so, what?
5. Should the final quiz be modified in any way?
6. Please add any additional comments that you believe will help improve this module before its launch date.