

Fall 2006

Kidspace New England Action Research: Quality of Information Systems Customer Service

Tyler Frank
Regis University

Follow this and additional works at: <http://epublications.regis.edu/theses>



Part of the [Business Commons](#)

Recommended Citation

Frank, Tyler, "Kidspace New England Action Research: Quality of Information Systems Customer Service" (2006). *All Regis University Theses*. Paper 436.

Regis University
School for Professional Studies Graduate Programs
Final Project/Thesis

Disclaimer

Use of the materials available in the Regis University Thesis Collection ("Collection") is limited and restricted to those users who agree to comply with the following terms of use. Regis University reserves the right to deny access to the Collection to any person who violates these terms of use or who seeks to or does alter, avoid or supersede the functional conditions, restrictions and limitations of the Collection.

The site may be used only for lawful purposes. The user is solely responsible for knowing and adhering to any and all applicable laws, rules, and regulations relating or pertaining to use of the Collection.

All content in this Collection is owned by and subject to the exclusive control of Regis University and the authors of the materials. It is available only for research purposes and may not be used in violation of copyright laws or for unlawful purposes. The materials may not be downloaded in whole or in part without permission of the copyright holder or as otherwise authorized in the "fair use" standards of the U.S. copyright laws and regulations.

Running head: QUALITY OF INFORMATION SYSTEMS CUSTOMER SERVICE

KidsPeace New England Action Research:
Quality of Information Systems Customer Service
Tyler Frank
Regis University

Abstract

KidsPeace experienced symptoms that impacted the quality of IS customer service. Action research was an effective research model to investigate these symptoms. Information collected from questionnaires and secondary data showed available support material, availability, and reliability were the lowest rated categories while courteousness, willingness to help, and quality ranked highest. The collaborative team identified three main themes including unfamiliarity with existing help desk resources, the help desk potentially not meeting expected service levels, and KPNE employees preferring to contact local resources. An evaluation of the proposed interventions training, marketing and implementing a service level agreement, resulted in a recommendation to increase training and in-house marketing as a first step to improving the quality of information systems customer service.

KidsPeace New England Action Research:

Quality of Information Systems Customer Service

“Who do I call for help?” Some employees are unclear as to whom to call when they need help with computer-related issues. “You’re already working on it?” Information systems (IS) employees discover they are working individually to resolve the same issue. “Let me answer this call real quick. It may be an emergency.” IS resources are called directly for help impacting the resolution of existing efforts and potential reprioritization and time management issues. These symptoms are present within KidsPeace and impact the quality of information systems customer service. The purpose of this project was to determine the causes of inconsistent quality of IS customer service and to identify appropriate interventions directed at improving customer service. As presented, action research was an effective research model to investigate these symptoms. Collaborative team members were involved in data analysis, interpretations were discussed, and central themes were captured. Based on the central themes, three alternative interventions were identified. After the interventions were evaluated, two interventions and their corresponding action plans were recommended to the management team.

Background of the Organization

William Thurston, President of Bethlehem Iron Works, founded KidsPeace in 1882 for the purpose of reducing the suffering of children whose families were in crisis as the result of a smallpox epidemic. The organization, a non-profit charity, has grown into a national organization offering a diversity of children’s treatment services. These services include: (a) a National Hospital, (b) residential treatment centers, (c) accredited school systems, (d) specialized foster care, (e) shelter and diagnostic services, (f) community and outpatient programs, (g) juvenile justice and substance abuse programs, (h) a 24-hour helpline, (i) research

and development, and (j) an interactive website of problem-solving resources.

Centralizing IS resources has been an ongoing process for KidsPeace National Centers headquarters for the past 5 years. New technologies have been implemented to further centralize infrastructure and support. These new technologies include using application servers so that applications are installed and maintained on a few servers instead of on each individual desktop computer, and replacing individual computers with thin clients, which are small computers without hard drives. These new technologies do not rid the environment of desktop computers and laptops, and the instability of the solution led to the refusal of an “all thin clients” corporation. The result is a mixed environment of servers, thin clients, laptops and computers that require maintenance and support. To request support, an employee calls the help desk.

KidsPeace National Centers, headquartered in Pennsylvania, has a full information systems (IS) department with specialized groups including: (a) a help desk, (b) hardware and software support, (c) system administration, and (d) web applications and development. Remote sites, located in Georgia, Maine, and Minnesota, employ Manager of Information Systems (MIS) Coordinators who work with KidsPeace National Centers Information System resources to resolve local and wide area network issues as required.

The MIS Coordinator for KidsPeace New England (KPNE) is responsible for the MIS services in KidsPeace New England sites. Their responsibilities include: (a) attending weekly management team meetings (Graham Lake Campus), participating in bi-weekly MIS Network and Hardware Support Staff teleconference meetings (PA HQ), and attending Hancock County Technology Coordinator meetings as scheduled; (b) supporting PCs, thin clients, laptops, printers and peripherals including troubleshooting, inventory, repair, upgrades, new user set up, research, maintenance, antivirus/adware/spyware support, and purchasing for all KPNE sites in Maine; (c)

supporting the Graham Lake School, including managing the internet filter, firewall, network server, LAN, PC Lab, and wireless laptop network; (d) supporting KPNE network including nine servers, wireless networks, and a statewide area network; (e) acting as a liaison with circuit and data line vendors and working with PA headquarters IS administrators and support staff as required; (f) conducting daily and monthly backups and completing requested restores; (g) designing, organizing, and maintaining the KPNE Intranet; (h) managing the KPNE help desk; and (i) teaching the KidsPeace Information System Training (KIST) to new employees.

The Competitive Environment

Seveik and Wetzel (2006) state that there are a lot of new technologies entering the market promising improved performance. Working with constantly changing technology is one of the most exciting aspects for most information technology professionals, but keeping up with the developments can also be one of the biggest challenges (Mill, 2004). Huwe (2005) presents that learning new technologies, as well as organizational and fiscal factors, makes it easy for IT professionals to experience low morale. With the widespread use of the Web and other associated emerging technologies, “technostress,” defined as the challenge of keeping up with changing technology, has increased (Huwe). This information indicates an issue of high staff turnover in the IT industry. “Help desks have typically had a high turnover,” and many people “come into the help desk as a stepping-stone and often do not stay” (Parry, as cited in Bradbury, 2005, p. 39).

IT staffing and human resource management affects organizations of all sizes. It is presented as one of the top four issues IT leaders or administrators are spending most of their time addressing (Lembke & Rudy, 2001). Companies are trying to minimize the effect of staff turnover so that expertise doesn’t leave with the resources (Garfoot, 2002). A recent survey

states that more than 50% of the IT professionals anticipate working for multiple companies and moving frequently between employers (Goodwin, 2005).

The Problem

When any employee calls the KidsPeace National Centers help desk, the help desk employee takes user and issue information and logs it into the service desk software program called HEAT. Then, depending on the nature of the issue, the help desk employee resolves the problem or creates an assignment in HEAT for the appropriate resource. The resource receives notification of an assignment via email, acknowledges the assignment, completes the assignment, records the resolution, and closes the assignment using HEAT. If the resource cannot resolve the assignment, or the assignment has been given to the wrong individual, the call is reassigned to a new/appropriate resource to troubleshoot, resolve, and close the assignment. The help desk then notifies the employee that the request has been completed. If the issue is not logged into HEAT, strategic planning based on HEAT data is inaccurate or subjective at best.

KidsPeace New England (KPNE) employees are experiencing inconsistent customer service with regard to IS requests. The existing notification process is not being used consistently and sometimes results in (a) parallel resolution efforts, (b) resolution knowledge residing with one resource, and (c) potential redundant research efforts. Communication and process issues are amplified as new employees are given different answers regarding whom to call when IS issues arise. Contacting the resources directly intrudes upon existing or in-progress assignments impacting the resolution of existing efforts and potential reprioritization and time management issues.

Problem Statement

KidsPeace New England, which includes all residential and foster care and family service sites in Maine, experienced inconsistent quality of IS customer service. The purpose of this action research was to determine what is causing varying quality of IS customer service and to determine appropriate interventions directed at improving customer service.

Literature Review

Most people acknowledge the importance of information technologies and information systems functions. Businesses need to determine “how an organization can take best advantage of IT in order to support its operations, add value to its products and services, and gain a competitive edge in the marketplace” (Stylianou & Kumar, 2000, p. 99). Productivity equals competitive advantage, and, to achieve maximum productivity levels, every PC must be up and running constantly (Locke, 2006). Schlageter (2005) states, “firms that can best implement technology to improve communication and delivery of value to clients will be the real winners of tomorrow” (p. 14). Delivering quality customer service is a strategic necessity and is linked to an organization’s information technology resources and capabilities (Ray, Muhanna, & Barney, 2005). Additionally, an organization’s culture, politics, and senior management may influence employee perceptions of what constitutes acceptable quality (Stylianou et al., 2000).

A major component of IT support service is an organization’s help desk. So what makes for a successful help desk? Ellis and Louthan (1998) suggest a perfect help desk (a) provides immediate access to the knowledge or solution required with no hold times or callbacks, (b) provides an efficient way to accurately describe the knowledge or information, (c) knows the environment and appropriate service levels, (d) anticipates problems and provides information to potentially avoid them, (e) has user friendly tools available to allow employees direct access to

knowledge or information (i.e. Internet or Intranet), (f) allows employees multiple channels to retrieve the information, (g) is available at all times employees need them, and (h) keeps employees informed of the status of their problems without employees having to request an update. “Customers of the ‘90s have a need for support anytime, anywhere, anyplace” (Ellis & Louthan, 1998, p. 3). Technology enables the helpdesk to manage calls more effectively by providing users with access to the helpdesk database so employees can perform their own initial research or generate their own tickets. Furthermore, Locke (2006) states that the benefits of a well-managed help desk include increased effectiveness in the areas of (a) cost and asset management, (b) upgrades, (c) infrastructure management, (d) problem management, and (e) field service management.

According to Boronico and Zirkler (1996), help desks face a number of challenges including (a) increase of customer usage, (b) high staff turn-over, (c) maintaining service quality, and (d) controlling costs. Locke (2006) states that staffing is a key issue and lack of career development and a definitive career path hinder the recruitment process. High staff turnover impacts not only organizations’ operating costs, but its intellectual property. Garfoot (2002) states that information about business, in this case IS knowledge, is becoming more valuable, but little of that know-how is accessible in any meaningful way, as “a wealth of data is simply stored in employee’s heads” (p. 18).

A characteristic of *service* that further challenges service quality is its variability. Since all services are not provided by the same individual, the quality of service may vary depending on who provides the service as well as when, where, and how the service is provided. As Bradbury (2005) presents, this inconsistency introduces the potential for users to find their own solutions, or rely on a non-IT colleague who seems to know the most. This may lead to

additional IT support and management costs. Ellis and Louthan (1998) state that the level of service a company commits to directly relates to costs associated with help desk services.

The cost and quality of MIS services impacts an organization's cost competitiveness (Stylianou et al., 2000). An organization achieves the strongest competitive positioning possible by balancing customer satisfaction, employee satisfaction, and cost of service (Ellis & Louthan, 1998). At least 50% of the cost of most IT departments is in service delivery (Everson, 2005). A 2005 *IT Spending Survey* revealed that IT budgets are generally stable, but companies are still looking for ways to reduce IT expenses (Bednarz, 2005). Urrico (2005) suggests that improving call center staff efficiency can result in a 10% reduction in personnel expenses, saving the equivalent of a 30% decrease in information technology expenses. An in-house help desk is faced with many roadblocks including costly technology infrastructure investments and staffing difficulties (Locke, 2006). Outsourcing the help desk function is a common approach for many organizations.

“The primary goal of help desk outsourcing is to reduce long-term help desk costs by utilizing a vendor that spreads costs across multiple companies” (Locke, 2006, p. 2). Besides reducing costs, benefits of outsourcing include: (a) more detailed reporting resulting in a clearer picture of efficiencies or bottlenecks, (b) improved satisfaction levels, (c) increased number of first time resolutions, (d) decreased turnaround time from initial call to resolution, (e) improved off-hour access to assistance, and (f) expert personnel due to the availability of on-going training and career development for career help desk personnel (Locke, 2006).

Entering and Contracting

Collaboration during this project began by finalizing the action research proposal and presenting it to the relevant client and obtaining the management team's support of the project. The first hurdle in collaboration was obtaining the relevant client's support in addressing the issue. The initial discussions with the relevant client included: (a) how will the results be presented; (b) how will the research data be captured, compared and presented including both local and national helpdesk experiences; and (c) as this was the first assessment, are we ready for what the results may expose regarding the existing quality of service. The issues were addressed by reviewing the collaborative nature of the research project effort using the action research model.

Cummings and Worley (2005) define the activities involved in entering and contracting as: (a) clarifying the organizational issue; (b) determining the relevant client; (c) selecting an organizational development practitioner, in this case an action researcher; and (d) developing a contract.

Clarifying the organizational issue. Cummings and Worley (2005) state, "the issue facing the organization or department must be clarified . . . so that subsequent diagnostic and intervention activities are focused correctly" (p. 73). The KPNE Director of Operations and the Graham lake Campus Director were key members of the organization interviewed to collect preliminary perceptions of the issue.

Determining the relevant client. The relevant client is the individual who directly impacts the organizational issue, has a vested interest in it, and has the power to approve or reject the proposal (Cummings & Worley, 2005). Although all employees who use MIS services should benefit from this effort, the Director of Operations for KidsPeace New England was the

relevant client for this effort because he directly impacted the organizational issue, had vested interest in it, and had the power to approve or reject the proposal.

Selecting the action researcher. As the action researcher, my role was similar to a project manager for this effort. I coordinated and participated in the planning, implementation, and coordination of the action research. I was also the lead on project communication and documentation.

Developing a contract. The initial desired result of this effort was to increase the quality and consistency of MIS customer service and response times. As the action researcher, I expected upper management sponsorship in collection of the data and participation of key members as part of the collaborative action research team. As an employee of KidsPeace New England, I used resources available in the workplace for research and presentation efforts.

All human resources for the project were internal. The collaborative team consisted of the KPNE MIS Coordinator (action researcher), the KPNE Director of Operations, and the Graham Lake Campus Director. Although the collaborative team was formal in activities, the allocation of resources did not require any special human resource or budget allocation requirements. The collaborative team met a minimum of once weekly, with additional meetings held as needed. Other informed and consulted resources used for the project were (a) KPNE human resource department, for a list of current employees for KPNE questionnaire and evaluating interventions, (b) National Headquarters help desk manager, for HEAT questionnaire results and training on HEAT tool to gather additional secondary data, (c) support staff for questionnaire pilot testing, and (d) the KPNE Training Coordinator for evaluating interventions.

Method

Action Research

Definition. Coghlan and Brannick (2005) state, “Action research has been traditionally defined as an approach to research which is based on a collaborative problem-solving relationship between researcher and client which aims at both solving a problem and generating new knowledge” (p. 9). Action research is collaborative from beginning to end, and members of the organization take part in the action research cycles. Cummings and Worley (2005) state that the collaborative participation and planned implementations allow an organization to acquire institutional knowledge and increase efficiency and effectiveness by continuing to align or improve internal processes. Furthermore, Cummings and Worley (2005) state that the action research model “focuses on planned change as a cyclical process in which initial research about the organization provides information to guide further action, and so on” (p. 24). The importance of data gathering and diagnosis before planning and implementation focuses the change effort on real and addressable problems. Evaluating the results after action is taken determines how accurately the problem was defined and how effective the intervention was at improving the process.

Rationale. “While doing any research in an organization is very political, doing research in and on your own organization is particularly so” (Punch, as cited in Coghlan & Brannick, 2005, p. 70). Based on the organizational structure and culture of KPNE and KidsPeace National Centers headquarters, the collaborative focus of the action research approach is critical to the success of change in the organization. Additionally, the iterative cycles position KidsPeace to better leverage action research as its members become more practiced and enhance its abilities to be a learning organization planning for change.

Action research model. The action research model described by Cummings and Worley (2005) was chosen for this project. The model defines the following process steps: (a) problem identification, (b) consultation with behavioral science expert (for this project, the action researcher), (c) data gathering and preliminary diagnosis, (d) feedback to key client or group, (e) joint diagnosis of problem, (f) joint action planning, (g) action, and (h) data gathering after action. This model was selected because it specifically details a collaborative or “joint” effort in diagnosing and action planning. As action researcher for this project, I was familiar with the steps of the action research model and felt I could effectively utilize them in my organization.

As MIS coordinator for KPNE, I am already part of the management team and have worked closely with the relevant client. The organizational issue is within my area of expertise and allowed me to contribute to the collaborative team in both consultation roles of action research practitioner and subject matter expert. My existing relationships helped me in completing the action research steps, and my central role in providing MIS services to KPNE users gave me leverage and access to resources to implement recommended actions. Additionally, one year after the date of implementation, the data-gathering questionnaire generated by this effort will be used to evaluate the interventions.

Validity

Validity is expected by the organization and was achieved by assuring the accuracy of the data. As collaborative team members were involved in data interpretation, all individual interpretations were considered and central themes identified.

Triangulation was used to ensure validity by addressing concerns of generating data from a single method, source, or analyst. Triangulation reveals inconsistent findings and uses those inconsistencies to address bias and gaps in the data (Patton, 2002). The questionnaire was

initially expected to be 10 closed-ended questions and 1 open ended question, but, after incorporating feedback from three pilot tests, it ended up consisting of 21 close-ended questions and one open-ended question (Appendix B). Data source triangulation was utilized by comparing questionnaire results with secondary data. Additionally, secondary data from the corporate help desk tracking tool was compared to information gathered from questionnaires.

For example, the first question on the questionnaire (Appendix B) is, “Have you contacted MIS for help?” If the respondent answered yes, secondary data was used to verify that a help desk call had been logged. A respondent’s HQ help desk feedback on the KPNE MIS survey was only considered valid if there was at least one HQ help desk call logged.

Data-gathering Methods

The data gathering methods used were questionnaires and secondary data. The methods were conducted at the same time in order to gather the necessary information in a timely fashion.

Questionnaires. Questionnaires were sent to 234 KPNE employees across all sites in Maine. According to Fink (2006), mailed questionnaires can reach large geographic areas as required by the locations of the various sites in Maine. The questionnaire response rate was 74% (173 returned, 61 not returned). The survey participants were identified from a list of current KPNE employees as of March 14th, 2006, provided by the human resource department. The purpose of the questionnaires was to collect primary data related to the problem statement.

After the collaborative group approved the final questionnaire, an initial email was sent to all employees describing the research effort and reinforcing that each survey would be treated in a strictly confidential manner, i.e., that survey data would be compiled and released only in summary data format. In addition, the questionnaire was intended to take less than 3 minutes to complete and deliver back to the facilitator (Appendix A). The questionnaires were sent out the

next day.

Secondary data. For this project, secondary data was collected from the HQ help desk call logging application called HEAT. By using a query function provided by the Help Desk Call Manager, a list of all requests from KPNE employees was generated and used to validate respondent information.

A second source of data collected from the HEAT was from an automated survey tool. After a HQ help desk call is logged and completed (closed), a survey is emailed to that person. If the employee chooses to take the survey, the information is written back to HEAT. From there, a HEAT administrator can compile the data and present the feedback. For this action research, results from 241 HQ employee surveys were compared with the results from 85 KPNE questionnaires.

Results

Results from questionnaire respondents and analysis of secondary data are discussed in this section. Overall, results to be addressed include: (a) contact methods, (b) help desk ratings, (c) themes from questionnaire, and (d) comparisons between like categories of two similar questionnaires.

Questionnaire

One hundred and twenty eight of survey respondents contacted MIS, and of those, 85 contacted the HQ help desk directly. Figure 1 shows that respondents who contacted the HQ help desk were more likely to recommend the help desk to other employees than those who had never contacted the HQ help desk.

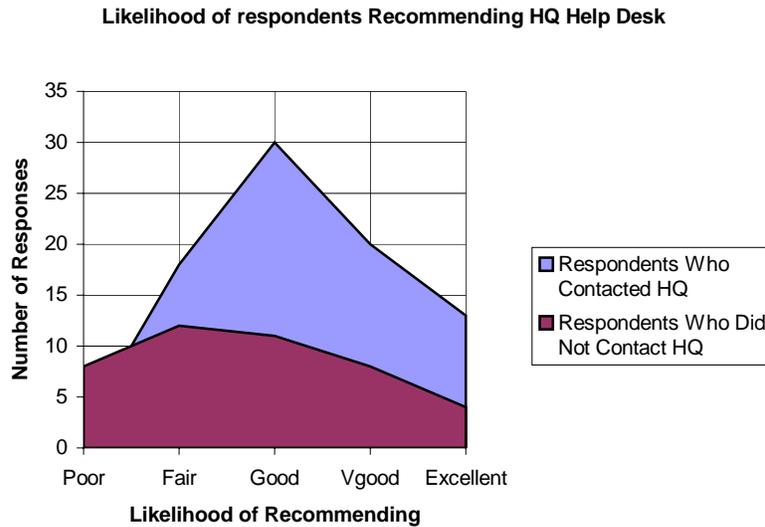


Figure 1. Comparison of the likelihood that a respondent would recommend the HQ help desk after contacting them the first time versus a respondent who had never contacted the HQ helpdesk.

In asking which contact method employees *most likely* would use when contacting MIS, respondents reported asking local resources or calling local resources, 29% and 28% respectively (see Figure 2).

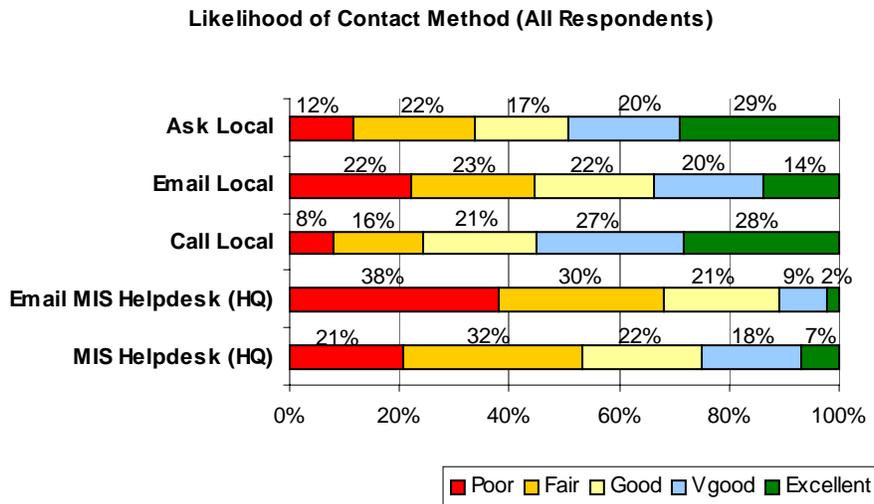


Figure 2. Likelihood of contact method as reported by all respondents represented as a percentage each value contributes to total responses for each category.

When asked which contact methods employees *actually* used, 30% reported contact calling the HQ help desk followed by 26% calling a local resource. Further, the responses indicated that over 60% of MIS requests are directed to local resources.

The top three HQ help desk excellent ratings consisted of courteousness, willingness to help and quality (Table 1).

Table 1

Top Three “Excellent” Ratings

Categories	Percentage (Of Total Responses)
Employee are consistently courteous	26%
Willingness to help customers	24%
Quality	20%

The bottom categories were available support material, availability, and reliability (Table 2).

Table 2

Bottom Three “Poor” Ratings

Categories	Percentage (Of Total Responses)
Support Material	6%
Reliable Systems	5%
Availability	4%

The collaborative team identified five categories based on individual comments: (a) local resources, (b) accessibility/availability, (c) reliable systems, (d) useful support material/training, and (e) HQ help desk.

Local resources. Respondents gave favorable feedback regarding knowledgeable and helpful local resources. Additionally, four respondents indicated a preference for using local resources and for talking to someone knowledgeable of the local systems.

Accessibility/availability. Most comments regarding accessibility and availability were not favorable and were directed at being on hold or having to leave a message. Those respondents who work overnight shifts noted that members of the help desk are not available when they are working.

Reliable systems. Some respondents were dissatisfied with Metaframe and the amount of time spent “dealing” with it. Other respondents submitted negative comments about printing Critical Incident Reports (CIRs).

Useful support material/training. Some respondents indicated they did not know what MIS was or who to contact for help. Other responses indicated some confusion about when to call local resources and when to call the HQ help desk.

HQ help desk. Overall, the comments on the HQ help desk were positive and consistent with the top three reported ratings of courteousness, willingness, and quality.

Secondary Data

Secondary data was acquired from the help desk issue-tracking tool, HEAT, and was used for triangulation purposes against the questionnaire results. To accomplish this, a query of calls logged in HEAT from KPNE users was compared to respondents that indicated they contacted the HQ help desk. A respondent’s HQ help desk feedback on the KPNE MIS survey

was considered valid only if there was at least one HQ help desk call logged. This process invalidated 8 respondent surveys and introduced 10 respondents who had indicated not contacting the HQ help desk. No other comparative data were derived from the survey tool, but the query did show that calls logged from KPNE users over the past 2 years increased from 117 to 303.

A second source of data collected from HEAT was compiled from 241 automated HQ help desk questionnaires. HEAT questionnaire feedback from January 1st through March 31st, 2006, was compared to the results from the local KPNE questionnaire. Specifically, the comparison reviewed the following categories: (a) timely resolve, (b) courteous and friendly employees, and (c) satisfaction level.

Timely resolution of issues. Figure 3 shows 73% of the HEAT questionnaire respondents selected “Excellent” for issues being resolved in a timely matter. Thirteen percent of KPNE respondents rated prompt service as “Excellent”, followed by 28% “Very Good”, and 36% “Good” (see Figure 3).

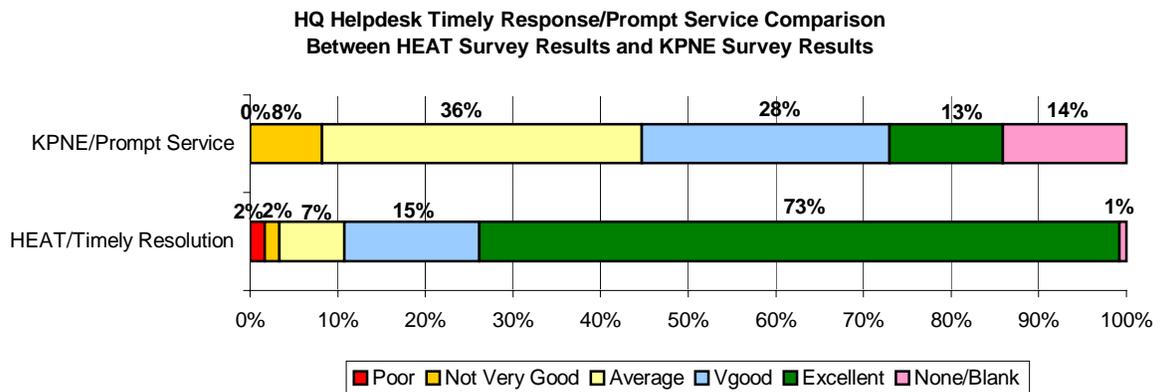


Figure 3. Comparison of HQ help desk prompt service and timely resolution represented as a percentage each value contributes to total responses between KPNE questionnaire and HEAT survey results.

Courteous and friendly. The HEAT survey allows for only three measures: (a) Excellent, (b) Good, and (c) Not Very Good. Overall, including “Good” or better ratings from both questionnaires, the data shows a consistent message that HQ help desk employees are considered courteous and friendly. However, “Excellent” ratings from KPNE and HEAT respondents are notably different, 26% and 82% respectively (see Figure 4).

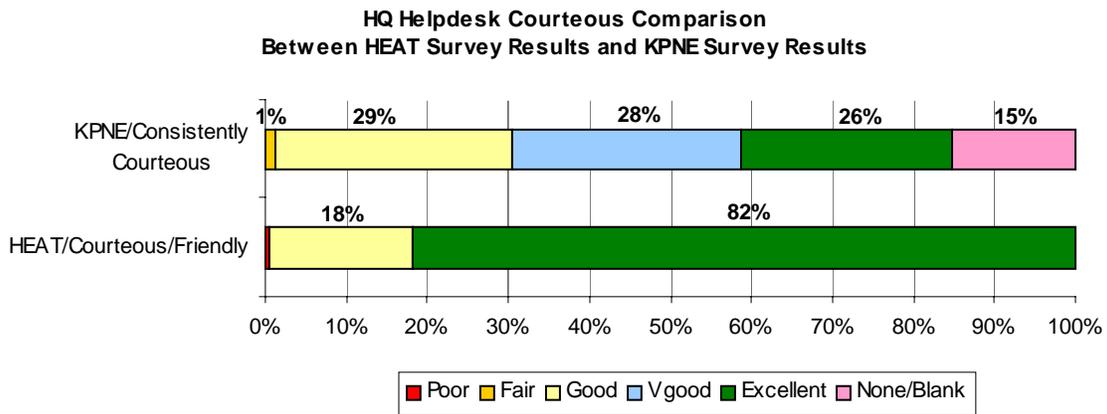


Figure 4. Comparison of HQ help desk courteousness represented as a percentage each value contributes to total responses between KPNE questionnaire and HEAT survey results.

Satisfaction level. In comparing the top three categories of the two surveys, the results indicate that most users are satisfied with HQ help desk. However, 75% of KPNE responses rated the HQ help desk as “Good” or better, and 97% of HEAT responses rated the HQ help desk as “Neutral” or better (see Figure 5).

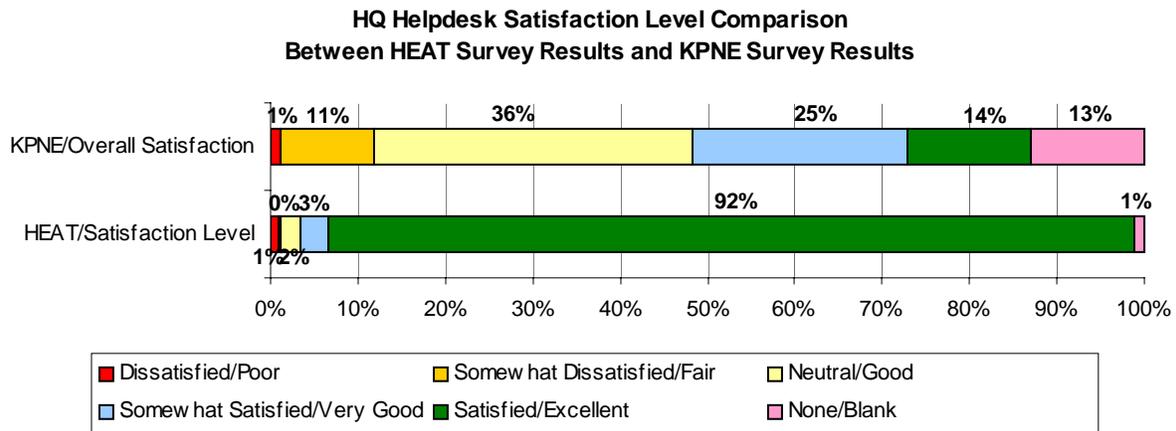


Figure 5. Comparison of HQ help desk satisfaction represented as a percentage each value contributes to total responses between KPNE questionnaire and HEAT survey results.

The results indicate that respondents who contacted the help desk were more likely to recommend the help desk to other employees. Additionally, employees would most likely contact MIS by calling or asking a local KPNE resource. Further, the top three HQ help desk ratings consisted of courteousness, willingness to help, and quality, while the bottom categories consisted of useful support material, availability, and reliability. Lastly, comments provided by the respondents addressed (a) favorable use of local resources, (b) preference to talk to a person when contacting HQ help desk, (c) low confidence in MIS system reliability, (d) lack of employee knowledge about MIS support and resources, and (e) favorable and unfavorable comments about the HQ help desk service.

Secondary data showed consistent discrepancies of “Excellent” ratings between the KPNE local questionnaire and the corporate HEAT questionnaire in the categories of: (a) timely resolve, (b) courteous and friendly, and (c) satisfaction level.

Discussion

The collaborative team identified three main themes: (a) some employees are unfamiliar with existing help desk resources; (b) although the HQ help desk may be meeting minimum service level expectations, they may not be meeting expected service levels; and (c) KPNE employees prefer to contact local resources.

Twenty-five percent of the KPNE respondents did not know about useful documentation. Additionally, comments recorded from the KPNE questionnaire that suggest unfamiliarity with existing help desk resources include: (a) when do I contact MIS help versus other people, (b) what MIS is and where headquarters is located, and (c) how are local resources related to MIS. Based on these findings, the collaborative team unanimously agreed that there is a population of employees who don't know what is available to them or how to access the resources.

How do employees know what level of service to expect from KidsPeace IS? Kettinger and Lee (2005) state that service expectations exist at two service levels: (a) the level of service desired, and (b) the minimum level of service customers are willing to accept. The 73% "Excellent" timeliness rating indicates that the HQ help desk is reaching the desired level of service for those who responded to the HEAT questionnaire. The 13% "Excellent" timeliness rating indicates that the HQ help desk is not reaching the desired level of service for those who responded to the KPNE questionnaire. Remote sites perceive they are receiving acceptable "prompt" service, but may desire more. One of the most important factors is "setting the appropriate service expectations with customers" (Hare, as cited in Hulme, 2006, p. 124).

Since all services requested by contacting the help desk are not provided by the same individual, the quality of service may vary depending on who provides the service as well as when, where, and how the service is provided. This may explain why KPNE employees

indicated they were most likely to contact MIS by calling or asking a local KPNE resource. In addition, several comments indicated favorable use of local resources. KPNE employees prefer to use KPNE resources because of the familiarity and ability to talk to a person.

Interventions

Three possible interventions the collaborative team came up with to address the themes generated from the action research data were: (a) employee training, (b) newsletter marketing, and (c) a HQ help desk service level agreement.

Training. How would employee training improve the quality of IS customer service? Characteristics of a perfect help desk include: (a) providing an efficient way to accurately describe the knowledge or information, (b) having user friendly tools available to allow employees direct access to knowledge or information (i.e. Internet or Intranet), and (c) allowing employees multiple channels to retrieve the information (Ellis & Louthan, 1998). Exposing employees to IS knowledge and information would allow the help desk to improve on these characteristics. KidsPeace currently uses the Intranet, training, electronic mail, and a national corporate newsletter to communicate MIS information.

Tulip (2003) states, “. . . many companies are at last seeing investment in their people as part of the competitive strategy . . .” (p. 50). Companies also see improving staff skills likely to deliver results for their business (Gregory, 2005). These statements are in concert with the KidsPeace National Centers of New England Training Plan (2005) philosophy that declares, “training of staff members is essential to providing a common base of knowledge for its employees to carry out the mission of the corporation” (p. 4). KPNE is justifiably dedicated to training employees. Offering an additional in-service MIS curriculum that includes outlining the various MIS resources as well as how to access the resources will educate employees and give

participants a chance to ask clarifying questions.

According to the KPNE training plan, all direct care employees are required to complete a minimum of 40 annual training hours. The in-service will allow employees to receive formal MIS training and earn credit toward the required annual training hours. This intervention will be relatively easy to implement in so far as there is already management support, available trainers, and an existing in-service process in place.

Marketing. Delivering education is one of the top six reasons a newsletter is an important part of business (Swift, 2006). There are two newsletters distributed to all employees that do not currently have any MIS information in them. MIS can submit articles about various MIS resources including what are and how to access the various MIS resources. Additionally, newsletters help clients get in line with office procedures (Randles, as cited in Swift, 2006). This additional exposure gives employees an opportunity to learn about the MIS services available to them and how to access them.

The MIS Coordinator would work with the editors of the two KNPE newsletters to submit articles about various MIS resources including who to contact and which contact method to use to access the various MIS resources. Working closely with the HQ help desk, the coordinator can include information addressing common help desk requests. Regarding getting unified messages out to employees, it is important to use various communications that repeat the information in various forms (Crawford, as cited in Greengard, 2005). Along with existing information available on the company Intranet, MIS information will be communicated to employees through three channels: (a) training, (b) Intranet, and (c) newsletters.

Service level agreement (SLA). Currently, there is not a service level agreement between HQ Help desk and KidsPeace employees. Without quality network services, business functions

that rely on information systems suffer (Laberis, 1998). Pratt (2003) states that improved relationships can be established between core business and support service groups by using service level agreements. With an SLA in place, KPNE users may choose to use the HQ help desk and resources instead of contacting local resources directly.

Implementing an SLA to communicate service expectations, priorities, and responsibilities between MIS and KidsPeace employees should build a strong foundation for providing consistent quality service.

Selected Interventions

The collaborative team selected two immediate interventions: (a) offering an in-service MIS training, and (b) marketing MIS information using existing newsletters. Initiating a new SLA project is not recommended at this time due to the lack of in-house expertise and possible resource requirement impacts for implementing the proposed SLA intervention. The collaborative team agreed that more research into implementing service level agreements is important in addressing the promptness of HQ help desk service. Leveraging existing processes and resources to implement the selected interventions will have the lowest impact on current resources.

The interventions are currently being developed in cooperation with MIS, Human Resources, and the KPNE Management Team. All team members agree that the initial interventions will improve quality of information systems customer service. The evaluation of the interventions will be accomplished by conducting identical data gathering methods 1 year from the date of implementation.

There are two goals of additional MIS training. The first goal is to educate users on initial troubleshooting assessment and maintenance of their issue to encourage self-service where

possible. This includes checking power, cables, or following predetermined troubleshooting steps with common issues such as printing. The second goal is to educate users on effectively communicating the issue with the helpdesk representatives. This would include an employee being able to determine where the problem may be. For example, a current employee may call the helpdesk and say, "I can't login." With additional training users may be able to determine that they have unsuccessfully logged on three times and say, "I have network connectivity, but I need to have my account unlocked."

The goal of the marketing intervention is to expose employees to information about issues they may not have experienced yet. The newsletters will familiarize them with a body of knowledge to address the issue or understand which MIS resource to call if they experience the issue.

Both interventions are focused on improving employee experience with the helpdesk. They address the quality of information systems customer service by improving customer competency.

Evaluating Interventions

To evaluate the interventions, the KPNE questionnaire will be administered 1 year from the initiation of the first intervention. The data will be analyzed and compared to the existing results. If the interventions are successful, the results should show improvement, specifically in the category of providing useful support material.

Evidence of Collaboration and Timely Feedback

The design and review of the questionnaire involved additional employees who critiqued and pilot tested the questionnaire through three iterations before presenting it to the collaborative team. A human resource specialist assisted in generating employee lists and employee numbers

that were included on the questionnaires to ensure unique respondents. I coordinated the effort with the remote sites by contacting the site administrative assistants to prepare them for the effort and enlist their help in collecting and returning the surveys. The quality and amount of data received was possible due to the cooperation and participation of many individuals.

The dissemination of information was coordinated with the management team. The results from the KPNE questionnaires were the first deliverables presented to the members of the management team. After the management team reviewed the results, the results were posted on the KPNE intranet for all employees to see. At this point, the status of the project was communicated to headquarters IS staff during a bi-weekly teleconference meeting. Since this was the first information available for KPNE regarding quality of IS customer service, the IT manager was eager to see the results and the final product of the action research.

The action researcher and the Operations Director generated a list of the possible interventions. Taking into account available resources, two of the three interventions presented were selected. As action researcher and MIS Coordinator, I am currently working with headquarters and our local HR department to implement the selected interventions. In addition, headquarters has complimented the research effort and will be incorporating questions from the questionnaire in the national help desk survey.

Reflections

It will be interesting to see how the selected interventions impact the reported quality of IS customer service. Using action research and evaluating the selected interventions may generate new interventions as part of a continuous process to improve the quality of IS customer service. KidsPeace has now used action research to identify issues and interventions in our organization. With this tool at our disposal, we can feel confident when we implement change

that issues will be identified and appropriate interventions can be generated to address any problems.

If this action research project were repeated, the following would be desired: (a) direct corporate sponsorship, (b) expanded data gathering methods, and (c) additional help desk involvement.

Direct corporate sponsorship. The relevant client selected for this project directly impacted the organizational issue for the sites in Maine, and the selected interventions are directed at KPNE employees. Had the relevant client been from KidsPeace National Centers headquarters, the resulting interventions may have had a much greater impact on gaining a competitive edge for KidsPeace National Centers as a whole instead of just KidsPeace New England.

Data gathering methods. As designed, the questionnaires for this action research project were sent to all employees in the state of Maine. Sending the questionnaire to the entire organization would generate data from all sites including: (a) employees with direct access to corporate IS resources, and (b) other remote sites serviced by different MIS coordinators. The data would allow additional comparisons and possible isolation of local versus corporate quality issues.

Interviewing is one of the most common data collection methods in qualitative research (Byrne, 2001). Advantages to face-to-face interviews are (a) direct, observable feedback, (b) collection of good qualitative data, and (c) structured and non-structured formats produce data for well defined and broadly defined data (McClelland, 1994). Increasing the number of follow up interviews based on questionnaire responses would have generated a better understanding of employee experiences with customer service. For example, KidsPeace currently requires

computer training for all new employees and provides basic support information on the Intranet. However, the training has been required only since 2004, and the support information has been available only since 2005. Comments about unfamiliarity of MIS resources or useful documentation may have been due to the respondent being a new employee who had not taken the training, or an employee who had been hired over 2 years ago. Interviews with those respondents would have better defined the data.

Help desk involvement. There were no interventions focused on addressing common help desk challenges listed in literature review including: (a) increase of customer usage, (b) high staff turn-over, (c) maintaining service quality, and (d) controlling costs (Boronico & Zirkler, 1996). Instead, the selected interventions were directed at improving IS customer service by educating KPNE employees. Data gathered from interviewing help desk personnel may have influenced the themes or tied the themes to help-desk-related issues instead of employee competence. The corporate help desk manager should have been directly involved in: (a) analyzing the data; (b) generating themes; and (c) determining and selecting interventions to address the issue.

Conclusion

As presented, KidsPeace is experiencing symptoms that impact the quality of IS customer service. The purpose of this project was to determine what caused inconsistent quality of IS customer service and to identify appropriate interventions directed at improving customer service. As presented, action research was an effective research model to investigate these symptoms. Collaborative team members were involved in data interpretation, and all individual interpretations were considered as central themes were identified. With this collaborative approach, project sponsorship, data collection and interpretation, and identifying themes and

interventions proposed to the organization were well received.

In addition to existing online information, implementing new in-service training and submitting MIS articles to KPNE newsletters will expose employees to IS information through various communication channels. Although further research into implementing a service level agreement with the HQ help desk is supported, educating employees to IS resources and access procedures is an agreed upon first step to improving the quality of IS customer service.

References

- Bednarz, A. (2005). Survey says software spending stable. *Network World*, 22(40), 40. Retrieved March 2, 2006, from Business Source Premier database.
- Boronico, J. S., & Zirkler, A. (1996). Quantifying the tradeoffs between cost & quality for systems service support. *Journal of Applied Business Research*, 12(4), 70. Retrieved February 17, 2006, from Business Source Premier database.
- Bradbury, D. (2005, October 18). A problem shared. *Computer Weekly*, 38-40. Retrieved February 17, 2006, from Business Source Premier database.
- Byrne, M. (2001, August). Interviewing as a data collection method. *AORN Journal*, 71(2), 233. Retrieved February 23, 2004, from InfoTrac One File database.
- Coghlan, D., & Brannick, T. (2005). *Doing action research in your own organization*. Thousand Oaks, CA: Sage Publications.
- Cummings, T. G., & Worley, C. W. (2005). *Organization development and change*. Mason, OH: South-Western.
- Ellis, M., & Louthan, J. C. (1998). Balance: the key to a successful help desk. *The Professional Journal*, 23(1), 1-6. Retrieved May 30, 2006, from www.afsmi.org/sbusiness/journal/aug98/jour-toc.cfm.
- Everson, P. (2005, December 13). Ten steps to get a grip on your IT spending. *Computer Weekly*, 28. Retrieved March 2, 2006, from Business Source Premier database.
- Fink, A. (2006). *How to conduct surveys*. Thousand Oaks, CA: Sage Publications.
- Garfoot, A. (2002, October). How to store your firm's expertise. *ITTraining*, 18 - 21. Retrieved March 2, 2006, from Business Source Premier database.
- Goodwin, B. (2005, January 25). Most IT staff plan to hop to the top. *Computer Weekly*, 36.

- Retrieved May 19, 2006, from Business Source Premier database.
- Greengard, S. (2005, November). agents of Change. *PM Network*, 19(11), 26 - 33. Retrieved May 11, 2006, from Business Source Premier database.
- Gregory, H. (2005). Insider training. *Marketing (UK)*, 3 - 4. Retrieved May 11, 2006, from Business Source Premier database.
- Huwe, T. K. (2005). Running to stand still? *Computers in Libraries*, 25(8), 34-36. Retrieved May 19, 2006, from Business Source Premier database.
- Kettinger, W. J., & Lee, C. C. (2005, December). Zones of tolerance: Alternative scales for measuring information systems service quality. *MIS Quarterly*, 29(4), 607 - 621. Retrieved January 26, 2006, from Business Source Premier database.
- KidsPeace National Centers of New England (2005). KidsPeace National Centers of New England training plan. Ellsworth, ME: KidsPeace National Centers of New England.
- Laberis, B. (1998). Quality of (your) service. *ENT*, 3(11), 62. Retrieved May 11, 2006, from Business Source Premier database.
- Lembke, R. L., & Rudy, J. A. (2001). Top campus IT challenges for 2001. *Educase Quarterly*, 2, 4 - 19. Retrieved May 19, 2006, from Business Source Premier database.
- Locke, M. (2006). Helping your help desk: Seven considerations to increase effectiveness. Retrieved May 30, 2006, from www.tmcnet.com.
- McClelland, S. B. (1994). Training needs assessment data-gathering methods: Part 2 - individual interviews. *Journal of European Industrial Training*, 18(2), 27. Retrieved February 25, 2003, from Business Source Premier database.
- Mill, S. (2004). Sharpen tech skills to stay on the cutting edge. *Computing Canada*, 30(12), 37. Retrieved May 19, 2006, from Business Source Premier database.

- Pratt, K. T. (2003). Introducing a service level culture. *Facilities*, 21(11/12), 253-259. Retrieved May 11, 2006, from Business Source Premier database.
- Ray, G., Muhanna, W. A., & Barney, J. B. (2005). Information technology and the performance of the customer service process: A resource-based analysis. *MIS Quarterly*, 29(4), 625-651. Retrieved March 2, 2006, from Business Source Premier database.
- Schlageter, M. (2005). Leveraging technology. *Accounting Today*, 19, 14. Retrieved March 2, 2006, from Business Source Premier database.
- Sevcik, P., & Wetzel, R. (2006). IT managers weigh in on application performance. *Business Communications Review*, 36(4), 20-23. Retrieved May 19, 2006, from Business Source Premier database.
- Stylianou, A. C., & Kumar, R. L. (2000). An integrative framework for IS quality management. *Communications of the ACM*, 43(9), 99-104. Retrieved February 17, 2006, from Business Source Premier database.
- Swift, M. (2006, January). Newsletter News. *Financial Planning*, 36(1), 75 - 78. Retrieved May 11, 2006, from Business Source Premier database.
- Tulip, S. (2002, October). Added value. *People management*, 9(2), 50 - 54. Retrieved May 11, 2006, from Business Source Premier database.
- Urrico, R. (2005). Call center success lies with staff. *Credit Union Executive Newsletter*, 31(3), 7. Retrieved March 2, 2006, from Business Source Premier database.

Appendix A

Introduction to MIS Customer Service Survey

Dear <KPNE employee name>,

Thank you, in advance, for your time in taking this MIS customer service survey. It has been offered to all KidsPeace New England employees in an effort to collect data about MIS customer service.

Each survey will be treated in a strictly confidential manner. Survey data will be compiled and released only in summary data format. Aggregate data will be used to determine customer satisfaction with the quality and response times of the MIS, but no specific data will ever be attributed to a specific individual or site location.

After the initial survey data has been analyzed a collaborative team will formalize a final set of interview questions designed to investigate possible causes and determine appropriate interventions, if any, directed at improving customer service.

Your participation is appreciated. If you have any questions, please contact me at (207) 664-1303.

Sincerely,

Tyler Frank
MIS Coordinator, KPNE

Appendix B

KidsPeace New England MIS Customer Service Questionnaire

EMPLOYEE #: ____ (to ensure only one survey is received per respondent)

1. Have you contacted MIS for help? (You may check more than one)

- YES
- I have had a co-worker (non MIS staff) resolve the problem
- NO
- Did not contact, but had co-worker (non MIS staff) resolve problem

2. How did you contact MIS? (You may check more than one)

- Called Headquarters Help desk number
- Emailed Headquarters Help desk
- Called local resource directly
- Emailed local resource directly
- Asked local resource in person

3. How likely are you to call the MIS Help desk (Headquarters) for help?

Poor	Fair	Good	Very Good	Excellent
<input type="checkbox"/>				

4. How likely are you to *email* the MIS Help desk (Headquarters) for help?

Poor	Fair	Good	Very Good	Excellent
<input type="checkbox"/>				

5. How likely are you to recommend the MIS Help desk (Headquarters) to a co-worker?

Poor	Fair	Good	Very Good	Excellent
<input type="checkbox"/>				

6. How likely are you to call a local MIS resource for help directly?

Poor	Fair	Good	Very Good	Excellent
<input type="checkbox"/>				

7. How likely are you to *email* a local MIS resource for help directly?

Poor	Fair	Good	Very Good	Excellent
<input type="checkbox"/>				

8. How likely are you to *ask* a local MIS resource for help in person?

Poor	Fair	Good	Very Good	Excellent
<input type="checkbox"/>				

9. How would you rate the **MIS Help desk (Headquarters)** in the following areas:

	1 Poor	2 Fair	3 Good	4 Very Good	5 Excellent	Don't Know/Does Not Apply
Accessibility (easy to contact)	<input type="checkbox"/>					
Availability (hours of Help desk)	<input type="checkbox"/>					
Providing services as promised	<input type="checkbox"/>					
Dependability in handling problems	<input type="checkbox"/>					
Performing service right the first time	<input type="checkbox"/>					
Maintaining reliable systems	<input type="checkbox"/>					
Prompt service to customers (responsiveness)	<input type="checkbox"/>					
Willingness to help customers	<input type="checkbox"/>					
Employee(s) are consistently courteous	<input type="checkbox"/>					
Understanding of customer needs	<input type="checkbox"/>					
Providing useful support material (documentation, training, etc.)	<input type="checkbox"/>					
Quality (degree of excellence)	<input type="checkbox"/>					
Overall satisfaction with MIS Help desk (Headquarters)	<input type="checkbox"/>					

10. What specifically are you satisfied and/or dissatisfied with MIS Help desk?

Appendix C

Survey Comment Summary by Category**Local Resources**

- local service is great
- prefer local help
- problems solved by local MIS staff
- local resource resolves quickly and efficiently
- local resources do a great job responding when need arises, very satisfied with services provided
- prefer talking to local MIS person
- local resource fixes problem in timely manner
- local resource very knowledgeable
- local resource helpful so no need to call HQ
- local resource provides quality service
- local MIS exemplary
- chances very good to ask local if on site
- prefer talking to someone knowledgeable of local systems
- prefer working with local resource who knows office, response is usually quicker
- local people great
- have always used local resources
- local resource is fabulous
- contacting local is easy and helpful
- local MIS very responsive

Accessibility / Availability

- MIS not available when working
- availability is predictable and they are responsive
- waiting on hold way too long when I had a problem
- overnights who have issues can't call until 8 am
- not available at all direct care times
- can not get person first time they call, has to leave a message
- no assistance during overnight hours, critical time for data entry
- don't like having to wait on hold so long
- satisfied with availability
- hours not the same as overnights
- likes to talk to an MIS person directly
- do not like that there isn't a person on the phone
- only time called -> left a message and never heard back
- always received prompt, courteous response
- (help desk) not there when they and staff work
- never spoken with MIS person VM only

- MIS team fast at helping us
- bounced between local and HQ

Reliable Systems

- ECIR very frustrating
- CIR printing huge negative
- overall access slow
- wish equipment was more reliable
- metaframe is a pain
- no issues with MIS resources; some system glitches
- dissatisfied with metaframe and the amount of time people spend dealing with it
- few system problems

Useful Support Material/Training

- lack of trainings to utilize the system for FSWs
- when do I contact MIS Help desk versus other people?
- unclear as when to contact local and when to contact HQ Help desk
- not sure which to call . .
- I don't really know what MIS is or where the headquarters is located
- What is MIS? How do I contact them? Who is the MIS Help desk? How are local resources related to MIS?

HQ Help desk

- friendly, prompt, courteous – but not always helpful
- satisfied with help desk
- time consuming
- not reliable
- courteous and efficient - great!
- willingness to help & courteous employees
- got voicemail, should always have someone on the phone
- one time complete failure to follow through with promised help - at times difficult to explain issue, overall get better help from local resource
- have heard they are not all that friendly and not so helpful
- I have never had to wait long and they take care of me quickly
- contacted twice, very pleased both times
- called 3 times problem resolved in minutes or hours, keep up the good work
- always courteous and friendly