Integrated Customer Services

A Case Study Proposal

ED 333A

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Background

The company has four customer services centers in the States, handling about 22 million customer contacts per year. These centers are responsible for three major areas: services on machines purchased from the company, supplies for the machines and questions regarding billing or contract matter. Each center was divided into four different functional organizations: equipment service, supplies marketing, account administration and telebusiness. Each organization has its own 800 number(s), management structure, work processes, technology infrastructure, customer databases and information system (none of which are connected with the others), and workspace or facilities.

When a customer calls in, representative in each organization provides its own service to the customer and if other services needed also, the phone is transferred to the other organization accordingly.

These different functions serve the same customers, and they often require similar kinds of customer information to respond to requests or inquiries. Most important: they have a common goal to take care of customer needs and solve problems primarily through a telephone process.

There are totally 4,000 employees in these customer services centers. The Corporate Training Organization (CTO), which is responsible for providing training to its customer services representatives, is organized into four functional divisions, taking care of tasks of requirements gathering, curriculum design, curriculum development and delivery of the training to the employees respectively. The traditional process of instructional design requires 40 hours of preparation to deliver one hour of curriculum.

Learning Environment:

Business problem: The customer services system in the company encounter business problems in many ways. From the customers’ perspective, it brings up uncertainty or confusion about the appropriate organization to contact, can when customers do contact, they often have to deal with hand-offs to representatives in other organizations. These long and cumbersome phone calls lead to frustration on retelling their stories many times without ensure of solving their problems. From perspectives of employees, they may also feel frustrated when they must continually refer customers to other functions and transfer the call for the solution to the customer problem or request. They may perceive that the company put knowledge barriers in their way by denying the access to customer account information and the necessary training knowledge to better serve their customers. As a consequent, the system wastes the employer’s time and cost on customer service center without bring in the retention and loyalty they should have from customers.

Due to the concern on these business problems, the company decides to reform its customer services center by ICS, the Integrated Customer Services project. ICS is originated as a strategy for re-engineering customer telephone services by creating a “one face to the customer, one –stop shopping” operation. It allows an employee to take care
of all customer needs, in most case, in a single phone, with no hands-off, using any process or system required. From this view, the primary value of ICS is higher customer satisfaction and, as a result, increased customers’ loyalty and retention. In addition, by giving the opportunity, knowledge and decision-making authority to provide complete customer care, ICS should lead to higher employee satisfaction, which should increase productivity as well as reduce HR and training costs because of a higher retention rate. Hence the company gains a significant competitive advantage as well as incremental increase in supplies sales revenue.

Giving the assumption that the company is willing to accept start up costs as a necessary price to pay for a change in strategy that promised revenue gains down the road and recognize that the effects of ICS were going to be largely indirect through customer satisfaction and loyalty, the transformation from “silos” services to ICS is on the road.

Expert and artificial intelligence systems to support ICS Reps in assisting customers play a key role as technology enablers in the overall ICS strategy. To address the problem that employees would face a difficult learning challenge in making the transition from a functional specialist to a generalist, the project team develop a vision of intelligent computer software that would guide the reps, altering them opportunities to sell products or to overdue payments in customer accounts, helping them provide correct information to customers through appropriate computer screens.

CasePoint is an expert system application that proved to be especially important during the ICS project. The system is designed to take the problem description that is input by the teleRep, based as closely as possible on the customers; description or explanation of the problem and to then conduct a search of its files to find the same or similar cases. Or it diagnoses the customer’s problem by presenting the teleRep with questions to ask the customer, then it determine whether the customer’s problem is software-or hardware – related, and can suggest corrective actions for the customer to fix the problem.

Providing ICS also requires each one of its 4,000 customer services representatives to be proficient in the all three services areas—supply ordering, customer account information and request for services. The Corporate Training Organization (CTO) is engaged to design and deploy the training for the ICS. The CTO functions linearly with its Requirements Gathering division gathering learning needs from employees, Curriculum Developments division designing and developing curriculum and Delivery division delivering the actual training.

Learning Problems:

There are three major learning problems in this scenario:

1. Due to the nature of the “silo” function of their work, employees are familiar with only one work process, but the ICS project requires more knowledgeable employees who have to know and use many different systems and processes. The motivation and engagement into such transition is a big learning challenge.
2. The Expert systems such as CasePoint are designed to help the telereps provide better services to their customers. However they are not very popular used or not used in an expectedly efficient way to fulfill their missions. Engaging the employees in using the expert systems application is one of the most important aspects of the implementation of the ICS project.

3. A survey shows that a traditional CTO provided training program would take as much as one year to cover the necessary materials for the transition on ICS project. Clearly this is not practical for both the employees and the company since the company has to continue to meet business and operational objectives during the transition period.

Hence we have to answer the following four questions when we are thinking about the design solutions to these learning problems:

1. How to motivate the 4,000 employees on the transition from functional specialists, who are familiar with only one work process, to ICS generalists, who have to know and use many different systems and processes?
2. How to engage the employees in using the expert system applications such as the CasePoint to provide satisfactory services to their customers?
3. How to design and implement a better training curriculum to employees that come from all into four different functional organizations?
4. How can the CTO, which is organized into functional silos that hands-off its work from one function to the next, reorganize to design, develop, and deliver a learning plan that was functionally integrated? How can they significantly reduce the processing time from requirements gathering to actual delivery of the training, and the time for employees to fulfill the transition?

**Design objectives**

Our goal is to design and implement a 15-weeks training curriculum to a sample of 50 employees that come from all four functional organizations of the customer services center to fulfill their transition for “silo” functional specialists to multi-functional ICS generalists, to improve their self-satisfactions in providing satisfactory services and hence to increase customers’ loyalty and retention. This curriculum should ensure more popular and efficient use of the expert system applications CasePoint. It should also scalable to be extended to the training of all 4,000 employees in customer services centers.

We need, as well, re-engineer the CTO to match the needs of the ICS initiative, to reduce the time needs for design, develop and deliver a learning plan that is functionally integrated, to provide efficient training to all 4,000 employees in the transition and also to take into account the consistent training, to newer employees, on later version of products and latest development of supplies.
Design Rationale

Based on the learning environment, participants, and the client’s goals, we will primarily situate our proposed design of learning solution in cognitive and situative approaches. Specifically, we will employ a blended learning approach to design our learning solution that is guided by the cognitive and situative perspectives.

1. **Blended Learning** (e-learning modules, instructor-led classroom learning, plus pairing study in workplace): The existing classroom-based training for the ICS might take a year for an individual to cover the necessary material for three functional areas. Obviously, this delivery method was not a practical learning solution for ICS, since the company had to continue to meet business and operational objectives even if the operational process needed to change. The blended learning can cut down on the time the employees spend in the classroom and give the learners more control to choose what they need to learn based on their prior knowledge while not allowing them totally uncontrolled.

2. **Cognitive**
   
   (c1) **Interactive environments for construction of understanding:** learning environments should be designed to provide students with opportunities to construct conceptual understandings and abilities in activities of problem solving and reasoning. The activities of constructing understanding have two main aspects: interactions with material systems and concepts in the domain that understanding is about and social interactions in which learners discuss their understanding of those systems and concepts. It recommends teaching concepts initially with exemplification and teaching students to solve applications problem later.

   (c4) **Assessments of extended performance:** it suggests assessments be based on more complex performances. For example, assessing writing should be based on performance of students in writing tasks. Similarly, the assessments in our case should be based on the Reps’ performance on solving the customers’ problems.

3. **Situative**

   (s1) **Environments of participation in social practices of inquiry and learning:** it believes that an important part of learning the concepts of a domain is learning to participate in the discourse of a community in which those concepts are used. This principle recommends students work in pair so that they can discuss how to solve problems and understand each other’s ideas.

   (s4) **Practices of formulating and solving realistic problems:** it suggests that the subject concepts and principles be embedded in the contexts of the learning activities.

Design Solution

1. Redesign Case Point:

The original Case Point provides basic technical support though diagnosing the customer’s problem, presenting the telerep with questions, determining attribution and
then suggesting corrective actions. To embedding it with the ICS project. The Case Point has to be redesign to match the needs from not only on technical support, but also needs from supplies marketing, account administration and telebusiness.

Solutions on redesigning CasePoint:

- **Building in the one customer database** from the original four area of the Customer services center into one database integrated with account administration, sales and technical supports, which provides all information about customer under one key feature such as serials number.

- **Writing log** for each calling-in from customers to keep a history of the services to a customer. The log will requires the telerep keep records on who, when and why the customer calls, who provides services to the customer, when and how the services are provided, whether appropriate follow-ups gives for the specified services. The log allows the company to archive their services, to follow up the services and to keep track of the customer satisfaction through a single account. It also provides an important assessment tools for the ICS projects in the long run.

- **Changing the navigation** on the CasePoint to let the employees easily locating the problems and provide faster services to the customers. It should allow the telereps quickly find the appropriate questions to ask without going though all the questions one-by-one providing the knowledge the telereps have on the company’s products and their experience on offering technical supports.

2. Design Physical work place:

In order to provide the integrated services to customers, we design the physical working environment based on groups. Each group contains at least one member from the original four work fields. The group has its own half-open cubic so that they can share the same information board and other materials. Some models of the most popularly used products are present and in case needed, two question areas are provided. The picture below may illustrate the simplified work place.

This open area allow communications among different groups. Inside, five members in the group, each has its own table and computer and other working materials. On the fence of the work area, the middle part are posting of all kinds of information they want to share, any one can post their info there. At the two ends of the fence are two question board that team member can post his/her question if it can not be answer among the group quickly in case he/she prefer not putting it on computer system. A small table in the middle allow easy group together to discuss any concern they have and there are some documents about new products and references on the table too. Some models of most popularly products are also presented on the table to allow hands-on and help to build understanding of the new developed products or supplies. The open area also allow to add in more material as the needs advanced.
3. Reorganizing CTO

Problems Revisited
Because of implementing the Integrated Customer Services solution, the new job position will require telephone representatives to process customer requests in all four areas. This will incur retraining employees to meet the new requirements. Accordingly, the old training organization – the Corporate Training Organization needs to be reengineered to cater these changes.

The Corporate Training Organization was responsible for designing and implementing the training for the ICS project. The CTO was organized into three functional divisions: Requirements, Curriculum Development, and Delivery. This traditional process of Instructional Design required approximately forty hours of preparation to deliver one hour curriculum, which made the use of CTO services extremely costly to design any training project. In addition, the process was very slow, which was specially a problem for the ICS project, because the ICS needed to move quickly.

The existing classroom-based training for the ICS might take a year for an individual to cover the necessary material for three functional areas. Obviously, this delivery method was not a practical learning solution for ICS, since the company had to continue to meet business and operational objectives even if the operational process needed to change. In addition, employees could not spend such an exorbitant amount of time in the corporate classroom and hope to retain the necessary knowledge and skills to be effective on the floor. Moreover, the pilot required that the employees learn most of what they needed to know in just 15 weeks.

Therefore, to meet these challenges mentioned above, the Corporate Training Organization needed to reengineer their own work process to design and deliver a learning program that was functionally integrated in a reduced development cycle time.

Solutions
- Form a special team purely dedicated to design and implement the training for the ICS project. Since they are purely concentrated on the ICS project and specialized
in different areas of training design, it is highly likely that they will finish the training project much faster. Team includes:

1. ICS project manager (coordinate the development of the project)
2. IT specialist(s) (insure necessary bandwidth availability, willingness to support plug-ins and/or external hosting – if necessary),
3. Instructional designer(s) (insure the attainment of the behavioral objectives defined for the content being covered by clearly communicating the learning theories and technical concepts to other designers)
4. Subject matter experts from three different functional areas (write the content)
5. Graphic designer(s) (design media elements to deliver the content and instructional methods)
6. Programmer(s) (program the storyboard created by the instructional designer)
7. Instructor(s) (deliver the training)

- Change the existing work process

1. Project manager and instructional designer(s) conduct the task analysis and learner study to determine training needs and high-level course outline. At same time, retool stand-up instructors to become e-proficient and help them learn how to deliver instruction online. By getting them involved in this way, we can insure their buy-in as development of the component gets underway and as it eventually becomes available to them to incorporate into their class.
2. Design and develop the first lesson
3. Deliver the first lesson via the company’s internal computer networks in conjunction with instructor-led training. At same time, design and develop the next lesson(s)
4. Repeat step 3 – 4 until the whole training is completed.

Since the actual delivery of the training will happen as soon as the design and development of the first lesson is done instead of having the whole curriculum done, it will save a lot of time. For example, if the whole training is 15 one-hour lessons, one lesson per week and the team need one week to finish the design of one lesson, total 14 weeks will be saved by using the new work process.

The Existing Work Process Flowchart

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<thead>
<tr>
<th>Requirements Division</th>
<th>Development Division</th>
<th>Delivery Division</th>
</tr>
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<tbody>
<tr>
<td>Determine the training needs by conducting task analysis</td>
<td>Design and develop specific curriculum</td>
<td>Instructors teach the curriculum to the employee</td>
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4. 15 Weeks Curriculum Design:

Given the reorganized CTO, we design our 15 weeks curriculum on ICS training to be a questions and practices based program. The 15 weeks are divided into five three-week periods. In each period we have one classroom training session and all others are based on the company internal network or practices at the actual work place with the new model of work place and new system of CasePoint equipped.

Week 1-3: Objectives:
- Group 50 trainees into 10 groups, each with five members, at least one from each of the four original working fields. There are one group leader, one question gatherer, one training profile writer and two participators in each group. Their roles in the group are switched every 3 weeks. The group leader is responsible for managing the training of the group in the three weeks, coordinating with CTO and other groups and presents the group’s needs to the CTO. Question gatherer is responsible for providing the customers services related questions to the CTO for their preparing instructions. The training profile writer should write down what the group have done for each training session, how is the attendance, what have learner and what is to learn and any special happenings worthy to be recorded. The participators are members that take part into the learning, discussing and contributing their questions. They also are responsible of trying to find answers to the questions risen up by group members before the questions are presented to the CTO.
- Group members get to know each other, exchange their experience on provide service in their own working field to customers and rise up questions they encounter.
- Classroom session: introduce the ICS project, its philosophy and its impacts on the company, on customers and on each individual employees; introduce on the company’s organization and provide necessary on four working field of the customer services center such as the properties and machismo of the new developed products, the supplies for each products and the company’s strategy on sale its new products and prices for different services; hands-on training on the newly redesigned CasePoint such as how to quickly navigate, how to find the right questions to ask, how to jump form one questions to another, how to locate the customers information on the system and how to introduce new developed products or supplies to customers or potential customers.
• Practice in the real work place on using CasePoint, gain knowledge on the working filed they are not familiar with through e-training designed by the CTO; discuss and contribute questions they encounter in their practice.

Week 4-6: Objectives:

• Rising up questions trainees encounters in three major division: customers services related such as products, supplies and technical supports; problems on using CasePoint such as locating customer information, billing problem and quickly navigating through the questions provided by CasePoint; other questions related to the training program. Finding the answer if possible before the questions are present to the CTO.
• Classroom session on finding the answers to the questions provided to the CTO; Group communication on the processing of learning and on the questions encountered in work and their solutions.
• Group-paced e-learning and discussion to deeply understand the organization and new development of the company’s products and services, intertwined with the discussion on provide better services to customer during the training.
• Practices with the answers equipped by both e-learning and classroom learning, using the CasePoint, revisit the work-log on the trainee’s computer system to reinforce the learning result and if possible, do follow-up to the customer if the problem is not solved last time

The rest nine weeks are the same as that at week 4-6 since these 12 week are 4 cycles based on different questions provided to the CTO and practice reinforced accordingly. The follow-chat of the training curriculum is as the following:
Assessment

To better understand the result of the designed 15 weeks training program given by the reengineered CTO, we provide four ways of assessment methods at the ninth week and the end of the training.

a. Customers Survey: we will randomly choose 500 customers that are severed by the 50 trainees to rate the services with very satisfied, satisfied, not satisfied and very frustrated. If customers are not satisfied with the services, they are asked to give the reason. We expected a better satisfaction rate on the customer survey at the end of the training for the 50 trainees.

b. The customer service log file on the redesigned CasePoint could be an important assessment tool. It provides the information on how the customers are severed. Whether the customers’ problem are solved, or are given the right instruction for further solutions or are not deal in the correct way they should be processed, the company can actually keep track of all the service history to its customers. We expected the log file will show more success rate on the first situations.

c. Self-evaluation at the beginning and the end of the training may be use as an assessment to demonstrate the efficiency of the ICS training program. The self-evaluation will focus on question such as what the parentage you actually solve the customers’ problems, Is the customer satisfied with the service you provided, How long it takes usually to give the right instruction for the customers and Do you feel any knowledge lack in serve your customers? How do you feel about the working place, how often do you use the CasePoint, DO you write the services log every time the customer calls in? How do you evaluate your work in the team?

d. Another important point used to assess the design solution is the long-run reduce on the cost of the company training and increase on the revenue of the telebusiness of the company.

Conclusion

Based on the learning environment, participants, and the client’s goals, we identified four learning problems: employees’ motivation in learning, transiting them from specialists to generalists through learning in relatively short time, the rare use of the expert systems such as CasePoint, and CTO’s operation not meeting the requirements of ICS.

Accordingly, we designed a learning solution to address these problems, including redesign of CasePoint and physical workplace, reengineering the Corporate Training Organization, and designing 15 week training curriculum. The solution employed a blended learning approach which was situated in the cognitive and situative perspectives. In short, the solution was a learning program that was functionally integrated in a reduced development cycle time which could transit employees from a single functional specialist to a generalist knowledgeable in all four function areas in relatively short time.
Reference: