DESIGNING A LEARNING SOLUTION
CASE STUDY 1

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August 3, 2000
Objective

The design team set out to design a learning program to achieve two goals.

- educate the customer service representatives in the operation of Case Point for use in their newly expanded roles as sales people, service call technicians, and billing service representatives combined;
- assist the customer service representatives in the creation of a mental model for the overall business processes so that they may develop higher level critical thinking and problem solving skills in connection with the resolution of customer queries.

The following document sets out a plan to achieve these goals by (1) designing a structure for the internal Training and Development group and (2) presenting a plan for the structure, methods and scheduling of the training sessions.

Assumptions

In developing the following plan, the design team made the following assumptions:

- The company is to choose Case Point as its software package.
- Case Point will provide technical knowledge necessary to preliminarily troubleshoot most common copier problems. It will also allow the representative to accurately determine the proper routing of calls that cannot be solved over the phone. Thus, there will be no separate training on the technical aspects of copier operation and repair.
- Case Point will integrate the three separate back office systems that currently exist for billing, supply ordering, and service call management. These systems will be retired and all of these functions will be handled through Case Point. Thus, no separate training on the old billing, supply ordering, and service call management systems will be provided.
- The implementation and development team working on Case Point has sufficient resources to train the Training and Development group at the beginning of month 1.

The Approach

The training will be scheduled as follows:

- Weeks 1 – 5: Training Materials and Software Development/Train the Trainers
- Weeks 6 – 10: Training of Coaches (4 users out of a total 50 users)
- Weeks 11 – 15: Training of Users (remaining 46 users)

Train the Trainers

During the first five weeks of this Pilot program, the current Corporate Training Organization will need to be retooled in order to adequately provide training for all the
employees. They will not only need to understand the business processes of the newly combined Customer Service Department, but they will also need to learn the new Case Point software. Therefore, this training period will build upon current mental models that each division has about its operations, enlarge these to include the other two components of the department, and teach the skill set necessary to use and subsequently teach, Case Point. Throughout this training, a learning community comprised of previously segregated individuals will be created with the purpose of transforming specialized Customer Service employees into fully aware, Case Point using, Customer Experience generalists.

**Week 1**

In order for the three distinct training divisions to be able to create a unified training program, they need a thorough understanding of each others domain knowledge and more importantly, an understanding of the organization of each division. For example, the trainers currently conducting Billing Support training need to understand the Customer Support and Supplies divisions. The most effective manner of teaching this cognitive understanding is to break the three divisions into groups of three, with one member of each division in each group. This will instantaneously allow for cross division interaction that will begin to fill in the lack of understanding for each person. Once these groups are formed, they will meet and begin a dialogue concerning their individual understanding of their division. After these meetings, the groups will spend a day shadowing each division so as to gain a thorough and fresh perspective on the actual work environment. At the conclusion of the shadow period, the groups will again meet to fill in the gaps of any missing knowledge. The goal of this segment will be to ensure a thorough understanding of each division of the department.

**Week 2**

After the cognitive training period, each member of the group will teach the others the specific skills that they would normally train each new employee. This training will allow for the full domain knowledge of each member to be learned by all the others in the group. Such a process is necessary for the trainers so as to ensure that their future students will have confidence in their abilities. Without full domain knowledge, the trainer does not have the full credibility necessary to teach the new skills. Assessments will be given following these classes that are similar to those normally given by the trainers in their own division.

**Week 3**

These trainers will all be responsible for teaching the new Case Point software system. In order for them to fully understand and subsequently teach it, they will need extensive training on both the skills necessary to operate and the mental models behind it. The creators of Case Point will provide both a cognitive overview and an intensive skills based training session. In order to ensure that fluency exists, each member will attempt
to teach the system back to the Case Point trainers. These trainers will build on any deficiencies in knowledge and ensure that full mastery is obtained.

Week 4

Once the entire formal training period has been completed, the instructors will set out on the task of creating the training for the actual employees. This process will include a regimen similar to what they have just gone through. This will take place initially in their teams, with a synthesis of ideas toward the end. A full detail of this training can be seen below in the next section.

Week 5

Once the instructors have finished designing their new course, these newly trained trainers will break out of their teams and teach the course to a different person. This form of a teach-back will not only give them practice in their craft, but the audience, being knowledgeable in the matter, should be able to fill in any gaps of information that occur. Once this phase is completed and each trainer has full mastery of all the skills and thorough understanding of the contextual issues, the training of employees can begin.

Coach Training

Four individuals are selected and designated coaches. These coaches will function as the in-group technical support and learning mentors for Case Point usage for the representatives. These individuals are selected based on their previous domain knowledge in diagnostic troubleshooting and overall computer literacy. The latter ensures their swift assimilation of Case Point’s interface functionality. Apart from generalized functionality training for Case Point’s interface, these candidates will undergo in-depth training of Diagnostic Skills needed for solving technical problems encountered with Case Point. The goal of this phase of training is to equip these four individuals with enough strategic knowledge of Case Point for them to be effective learning mentors in their localized work groups.

Pilot Training Program for Coaches

Week 6

Overall Education of Three Department’s Workflow

In this week, the candidates shadow individuals working in the three major areas: 1) service on machines purchased from the company, 2) ordering supplies for the machines, 3) questions regarding an invoice or some other billing or contract matter. By observing the specialist’s in their field of expertise, they get an initial mental model of the skills needed in that specific area. Shadowing each field during the week gives them an overall picture of how the three specialized fields integrate.

Goals of Week 6

• To get an overall understanding of how these three specialized areas integrate
• To get a specialized understanding of each area from the viewpoint of a specialist

Trainers
Each specialist in the designated field trains and instructs the other workers on the skills and processes needed in their area of specialty.

Week 7
Training in Interface Usage of Case Point and Domain Knowledge on Machine Servicing
Week 2's purpose is twofold: to equip the workers with a basic domain knowledge of the hardware they are servicing and to orientate the learners with the interface and functionality of Case Point. It focuses on teaching the learner's enough cognitive knowledge of the machine to intelligently use the Case Point system. It aims to instill a mental model of the functionality of machines and how they possibly malfunction. They don't have to master the domain knowledge completely but enough to utilize the Case Point system's knowledge system to diagnose customer problems.

Goals of Week 7
• To teach workers the interface and functionality of the Case Point Tool
• To equip workers outside the field of machine servicing with a basic domain knowledge of how machines worked and malfunction.

Trainers
Current specialists in the Service Section of the Company

Week 8
Using Case Point in teams
After familiarizing themselves with the interface of Case Point and assimilating a mental model for how machines work, we divide the group into teams where there is a representative of each specialized area present. In this team, there will be one expert in each of the individual fields but new users of the software tool. Each team will be assigned to one service call station and will answer the incoming calls as a team. In this way, the team members can tutor and reinforce each other’s domain knowledge of the Case Point interface as well as triage the calls with the specialized knowledge they have. For example, the service expert can triage the customer calls regarding machines purchased, the billing specialist can demonstrate how to effectively handle a typical billing problem and the supply specialist can handle the supply questions that come in. By designing this situative learning environment, each team becomes it's own classroom with different team members acting as experts in different circumstances. Handling real calls allows for the other team members to watch the specialist at work. The live questions highlight critical knowledge that would otherwise be overlooked in a curriculum more structured to communicating declarative knowledge of the different fields. This situation allows for the workers to learn the strategic skills needed in applied situations.
Goals of Week 8

- To reinforce previously assimilated domain knowledge by watching other team members use the tool and by troubleshooting each other's user problems.
- To learn how different specialists employ Case Point to solve customer problems – learning different mental models of using Case Point.
- To learn the critical domain knowledge needed to triage the calls in the different specialized fields.
- To learn how to use Case Point as an effective diagnostic tool.

Week 9

Using Case Point Individually

In this phase we send each worker out to individual call stations to triage the calls on their own. This is the final phase where we remove the last part of the scaffolding where each worker is expected to know how to navigate the Case Point interface fluently, have a good idea of the critical knowledge in each field that is most crucial to customers, and to effective diagnose a service problem alone. This phase basically is the final test to assess facets of the learner's procedural and strategic knowledge acquired through these past weeks.

Goals of Week 9

- To test the learner's strategic, procedural and global mental model of the tasks by removing the final bit of scaffolding.
- To expose the worker to a more variety of customer calls and encourage the worker to draw from the different types of mental models to answer a question he was not specifically trained to answer.

Week 10

Troubleshooting Seminar

Week 5 is a training session dedicated to solving expert problems in using Case Point. It is a compliment to the first session of Case Point interface training except that now it assumes that everyone is a fluent user of the tool. This session is geared to solving higher-level user problems and fine-tuning expert usage of the tool. It is also a forum for trouble shooting problems related to specific three specialized areas before integration. Domain knowledge experts answer more strategic questions than in the beginning. Novice Learners are now Expert Learners and the questions are more fine tuned and global.

Goals of Week 10

- To learn a more strategic usage of Case Point.
- To learn the finer nuances of interface functionality.
- To analyze more complex case studies of customer calls.
- To pool expertise and learning experience.

Pilot Training Program for Users
In month 3 we take this Pilot Program and replay it again with the remaining 46 users. Dividing the group into four groups, we would assign each coach as a localized learning mentor for the Case Point tool.