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Problem analysis

System Improvement Objectives

1. The main problem with the current information system in place is that it did not completely consolidate all of the company locations and those that were consolidated were not done so in the most efficient or useful manner. Complete centralization of the data for all the locations throughout the country would be the first system improvement objective. As it stands the system has inconsistent data about the locations of the company. The locations that had implemented electronic practices in terms of organization, record keeping, tracking of tutors and clients were incorporated into the system and their data has been transferred into the system. While locations that where using a hybrid practices which consisted of some electronical and some manual records had partial data enter the system. The data what was electronical while the manual was omitted and not incorporated. The locations that were doing everything manually do not exist in the system and there is no data about them. A standard method would have to be developed which would be used consistently and would meets company requirements to transfer and insert the manual records into the system as well as new data entries. The electronic systems in place at certain locations that were not able to be completely merged into the system because of incompatibilities between the location system and the company system. For these situations interfaces that would enable cooperation between the two systems would have to be developed and implemented in the new system. Consolidation and centralization of all the location, staff, tutor, and client data would increase data accuracy and consistency by 60%.
2. A second problem with the existing system is that the data captured is very basic data about all of the entities and it isn’t very useful. For example the current information on tutors or clients are represented by their names (fist, last), one form of contact information, and the preferred location for sessions. They system currently in place doesn’t capture all the information that company requires and would like to have access to. Because of this the second system improvement goal is expansion of the data that can be captured by the system and to increase the data’s usefulness. The company needs to have accurate and meticulous records for every location, staff member, tutor, and client. This would allow the company to be very accurately informed about each and every individual location as well as a whole. The expansion of data capturing should include buts is not limited to the following. Locations should have the following data captured location ID, location number, location address, total number of staff, number of staff per department, needed repairs if any, supplies levels etc. Tutors should have the following data captured tutor ID, tutor name, address, various contact forms, subjects tutored, credential (if any), base hourly rate, hours worked, current clients, availability etc. Similar data capturing expansions would apply to staff members and clients. The expansion of the data captured and the increase of its usefulness would increase/decrease something by this much.
3. A third problem with the existing system is that it has no ability to manipulate any of the data it records. The system can record tutoring sessions and their details but not manipulate them without a user. The system can’t mine or use the stored information in any way. Because of this the third system improvement goal is to give the system data manipulation capabilities. The company requires that the system has ability to manage and manipulate the data of tutoring sessions and their details in real time. To achieve this factors like store procedures and triggers would have to be developed and implemented to minimize the need of users for data management, insertion, and capturing. The company would like the system to have data manipulation abilities that would allow the system to generate statistics via the mining of the data captured. The statistics would be generated by the mining of the data recorded by the system. In turn these statistics would be used to allow the company to see how it ranked amongst its competitors. They system would also generate internal statistics to allow the company to gage how successful and effective their services by location are in order to see what locations need to be improved to increase the company`s success and effectiveness. The system would also generate statistics on which location provide the most revenue. This would allow the company to make studies as to why these locations bring in large portions of revenue to see if they can recreate these conditions in the other locations to maximize profits. The system would also mine the tutor data to see how successful each tutor is. This would allow the company to study the methods and best practices of those tutors and in turn have those methods and best practices identified and implemented by other tutors who might not be as successful. The tracking of the successful tutors would also allow the company to reward them accordingly. This would allow the company the opportunity to offer the best possible services with high efficiency. The insertion of the data manipulation capabilities would lead to the reduction of office staff expenses by 66% and allow the company to maintain its competitive edge.
4. The current system does not have supplies managing and tracking capabilities. The office staff is responsible for managing and keeping track of the supplies sometimes mistakes are made or orders are not placed or placed late which causes supply shortages. Because of this the fourth system improvement goal is to give the system supply management and tracking abilities. The company requires that the system be able to keep track of the inventory of all the supplies for all the locations and to automatically place orders when supplies get low and to keep suppliers notified of supplies levels. The system is also required to capture billing and shipping data. The company wants to pay all of the supply expenses from their administrative office that way they avoid having to track the bills of each individual location and having a tracking system to separate paid and unpaid bills. The implementation of the ability to manage and track supplies into the system would increase/decrease something by this much.
5. The state test scores of the individuals who were tutored by the company are not tracked. These scores need to be tracked and recorded into the system so that the company can use these records to assess the quality of the test preparation services being given at their locations. If the test scores are low then either the tutors have to have implement better practices and methods in order to continue with the company or perhaps need to be replaced by more capable or skilled tutors. If test scores are high then the company would like to know in what locations the test scores are consistently high so that they can study the tutoring practices and procedures of the location in order to reproduce them in other location to yield high test results. Tracking the scores of the individuals who consistently received tutoring from the company or prepared for a state examination through the services of the company would lead to more accurate and incentive advertising which could lead to a revenue growth of 5%.