



# Team management and database operation

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Post MQP Research

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## Self-Assessment

### Effective

Since the technical skills and background knowledge required by the MQP were very new to me, I have been learning all the time through different ways such as online researching, reading relevant textbook and consulting others in the company and so on. I have been trying hard to figure out each problem we encountered and working overtime a lot to ensure the completion of the project. The ability to learn independently in a fast-paced working environment and creatively use cross-platform tools to solve issues and improve working efficiency are important qualities, I think what I did during the project has proved those abilities.

### Task assignment and management

Since I took my some more computer science related courses than the other two team members, I chose the most technical part of tasks in this project, mainly in charge of software coding and developing the framework for loading database to cache. Lyon was more in charge of IT side of this project such as installing and initiating some tools, restarting clusters and extracting data from database and so on. Kimberley was later in charge of analyzing MDX queries sent from London team. Though each of us was doing different stuff, we helped each other all the way trying to solve problems as many as possible.

### Relationship with sponsors

From my perspective, most of the time we were working well with our sponsors. We consulted sponsors or other staffs when we needed help with project or when we had different ideas about implementation of some part of the project. We shared our thought with sponsors and discussed with them. Even when we were not sure if we could finish the project before the last day of the term we shared our concern, reasons and alternative solutions with our sponsors trying to avoid some potential issues or inconvenience. However, lack of more effective communication between our team and sponsors was an issue based on feedback from sponsors, which could have been done well.

### Relationship between team members

When involving in a team project, if there is a task assigned to me I am always the one working and trying to figure it out, so from my perspective each team member should share the workload and then work hard to complete the task. Lyon and I have been spending a lot of time and effort for this project and the relationship between us is very good, we always encouraged and helped each other and felt very comfortable when working with each other. If Kimberley could be willing to work more that would be appreciated.

## Analyze of existing issues – Team management

### Existing issue

The biggest issue with our team should be the communication between team and sponsors, and between team members. Better communication is needed when sharing different ideas with our sponsors, sometimes we should clarify our thought more clearly and explain thoroughly with sponsor; also different people have different perspectives regarding one thing, we should probably communicate in different ways which are more acceptable to others and so everyone can get to the consensus easily without any misconstrue.

### Sense of teamwork

Before talking about the importance of communication, sense of teamwork should be built first to make sure all the team members have the common sense and goal to make the team project a success. Different people have different skills that can be put together to increase working efficiency. Working cooperatively in an environment of respect and draw on all the resources available is the key to meet the goal of productivity, which is essential to teamwork.

Working cooperatively means trust each other in a group to work toward a common goal, without turf issues and politics, just focus on the tasks that need to be done. Better problem solving, greater productivity and more effective use of resources are three major bottom-line benefits of the focus of task and resources; working together also

helps people learn from each other and develop important skills such as interpersonal communication skills, satisfies a need for socialization and motivates and fulfill people. Team characteristics determine if the teamwork would be successful. Productive teams usually have common purpose that each team member is committed to, beside the common goal, they care about each other and are concerned about how their actions and attitudes affect each other. Listening to and being respectful to each other are usually what leaders and team members do to encourage everyone's participation. To achieve these, team members should express their feelings to and be honest with each other, open to others' suggestions, which are essential in the communicating with others. Usually people cannot choose all the work, then acceptance of assignments and understand of goals become important in teamwork. Motivated by peer pressure, team members would work hard to get their jobs done well. The progress and results of a team job need to be assessed, team members should be results-directed instead of process-oriented since everyone share the common goal and have commitment; once progress is assessed, it serves to guide the future action of a team. Lastly, healthy team requires shared trust, team members essentially trust one another; there might be occasional conflict, but since everyone share the goal and communicate with and trust each other, conflict would be finally resolved and project can be moved on. (*Team characteristics, Building a Sense of Teamwork Among Staff Members, 2014*)

### The Loner

However, sometimes there is loner in the team who is a nonteam-player, the individual can drag down the team effort. The loner's inappropriate behavior may cause the co-

workers' resentment and uncomfortable us-versus them attitude. Handling a loner becomes important when trying to build team characteristics. One way is to create a niche that can be filled successfully and productively by the non-maintremer, another is to encourage the individual to modify his/her behavior by playing up peer pressure. Explaining the negative effect of his/her anti-team behavior to the loner would change the person's behavior to move him/her closer to the venter of the group, such as the ill will and negative feelings from other team members, which would affect the team's common goal and atmosphere of trust. Communication skill is then important when handling this kind of situation and will be discussed in next chapters of this paper. (*The loner, Building a Sense of Teamwork Among Staff Members, 2014*)

### Success with supervisor

The two topics above discussed about teamwork, basically some important issues within a team. However, most teams have their supervisor who assigns the task, controls the resources that the team need to complete the work, discusses the details of the task and assesses the outcome of teamwork. Purely maintaining a good relationship among team members and trust atmosphere is not enough, at the same time a good relationship with supervisor needs to be established, building a positive and productive relationship with supervisor will help team mandate and negotiate for resources.

First thing is to define and share the team goal with supervisor:

- Clarify mutual expectations early. So that the team would not be in the hard situation such as having structural problems or things not in the right way as supervisor expects.

- Secure commitments for the resources needed. When establishing goals and share expectations with supervisor, make sure get the required key resources such as people, funding and knowledge first, then make the commitment.
- Aim for early wins in areas important to the supervisor. The team's priorities might be different from what supervisor cares about. Get supervisor's priorities done first to give him/her the feeling of sort of ownership of the team's success.
- Aim for good marks from those whose opinions the supervisor respects. Then their assessment of the teamwork will take on additional importance and probably affect the supervisor's assessment.

After sharing goals with supervisor, next thing to do is to establish how the team wants to work together with him/her and match the team's requests for support to current situation. As discussed earlier, different people have different priorities, as well as different preference on how much information want to share and how involved should the supervisor be. Clarifying those issues at the beginning will eliminate potential misunderstanding in the future work and help things go on smoothly.

Always plan to have regular conversations with supervisor after the start of task, including situational diagnosis conversation, expectations conversation, style conversation, resources conversation and personal development conversation and so on. Conversations help maintaining a positive relationship with supervisor and build a trust atmosphere between the team and supervisor. (*How to succeed with your new boss, 2002*)



## Interpersonal communication skills

Communication plays almost the most important role in establishing whatever a positive relationship with supervisor or building the sense of teamwork within a team.

Interpersonal communication skills are the tools people use to let others know what we think, how we feel, our need and want. Every one of us has his/her own preferred style of communicating with other and different perspectives regarding certain things.

Sometimes improving communication skills can help succeed in teamwork.

Interpersonal communication skills level can be assessed from others' feedback, or by another approach – the Two-Column Case model could help people evaluate if a conversation is successful and identify some patterns to see which areas of communication skills need to be improved.

The model first asks people to identify some unsatisfactory conversations they had before, which made them feel angry or disappointed; in part A write down the situation and intent of the conversation, including who was involved in, the history and what were hoped to achieve or try to accomplish; then identify themes across the cases and to develop communication-learning goals by answering some questions in part B. The model will be attached in the appendix.

The five questions in part B can be good assessment of the quality of a conversation.

The questions are listed below:

- Did you share your intent with the other person?
- Did you clearly share your opinion about the topic?
- Did you explain what facts and/or experiences your opinion was based on?

- Did you ask if the other person understood your views?
- Did you make sure you understood the other person's intent and opinion?

It is clearly stated in the questions above that understanding each other's intent and opinion is essential in a successful conversation, beside clearly state the opinion to other people, explain something behind the opinion is also important, which can help others understand your opinion better. (*The Basics of Communicating with Others, 2015*) (*The Two-Column Case Model, 2015*)

### Emotion and conversation

Trace back to the topic "Sense of teamwork" discussed earlier, a trust atmosphere cannot be built without team members candor and openness, members should always express their feelings honestly. One of the purposes is to try not misunderstanding each other, but there is another reason. Most of the time people want to hide their own emotion when trying to communicate with others, especially negative feelings such as anger or fear that may affect the goal of a conversation. However it is usually impossible to separate emotion from the conversation, body and tone will always tell the truth from the deep heart even though the words and language is not telling. An research conducted by Albert Mehrabian indicates that only 7% of the message we receive while communication with others comes from the words that are used, which means 93% of the message comes from body language (55%) and tone (38%). So the crucial fact the research tells us is that, if there is discrepancy between the worlds and body language or tone, our words would probably be discounted, which is not good for creating a trust atmosphere. (*When Emotions Get in the Way, 2015*)

## Database operation

The MQP project sponsored by BNP Paribas deals with large scale aggregation of data, the tool we used to store and aggregate data – Oracle Coherence, is a Java-based in-memory data grid, designed to have better reliability, scalability and performance than traditional relational database management systems. In order to test the Coherence system to assess its efficiency in terms of server time and space, the first step is to load all the required data into the cache, which were 152 tables from BNP database; then query the data from the tables to create the joint table and stored in an separate cache as output; lastly data in the output cache is aggregated to get some useful information.

The loading process took a long time: five hours to load 152 tables into cache and another five to six hours to create and load the joint table. What if selecting those required fields from the 152 tables on the disk directly (instead of on the cache) create the joint table, to avoid the loading process which took five hours?

In computing, a cache is a component that stores data so future requests for that data can be served faster. A cache hit occurs when the requested data can be found in a cache, while a cache miss occurs when it cannot. Cache hits are served by reading data from the cache, which is faster than recomputing a result or reading from a slower data store; thus, the more requests can be served from the cache, the faster the system performs. For example, there are two tables one of them has  $M$  rows and another has  $N$  rows, certain fields of each table are being selected to create a joint table. If the joining process is done outside the cache, that is, not loading the two tables into cache before joining them to create the joint table, the throughput from disk to cache would be  $M \times$

N, since most of the time computation is done in cache, data would be put from disk to cache each time when matching one row in table M to table N. If loading the two tables from disk to cache before doing the joining operation to create the joint table, then the throughput will be  $M + N$  because data are already in the cache; in this way, the total time taken to do computation to create joint table would be decreased.

Therefore, it is still worth spending five to six hours to load all the data into the cache first, then select some fields from the existing tables to create the joint table after some computation on the cache.

## Conclusion

Based on analyze of our case and research of team management, there are several aspects that needs to be improved for better performances of our MQP team.

### Task assignment and management

Acceptance of assignment and understand of goals is essential in teamwork, which need to be improved on some team members. When a task is assigned to someone, what he or she should do is to try the best to learn related skills or knowledge to complete it instead of transferring his/her own work to other team members.

### Relationship with sponsors

If next time working in a firm as a group, we would arrange more meetings with sponsors to regularly share our thoughts, understanding of final expectations and progress with sponsors, and try to get their priorities done first. When communicating with sponsors, state our opinion clearly and explaining related experiences to let sponsors understand better, trying to avoid miscomprehension between the team and sponsors.

### Relationship with team members

The main issue with the relationship among team members is the negative feeling caused by the nonteam-player who have anti-team behaviors. If we were given a chance to work together one more time, we would explain our common goal, the inappropriate behavior of her that may affect the team's attitudes and integrality, try to encourage her to modify her behavior by playing up peer pressure. And we would keep the five

questions from the two columns model in mind when having conversations and use it as a guide to evaluate the quality of our conversation, so that communication would be effective and interpersonal skills can be improved.

Using quote from Jeff Polzer—who is professor from Harvard Business School who is teaching organizational behavior to end this research paper about team management:

"The best teams are those that not only combine the skills of their members successfully to fit the demands of their task but also energize team members through the bonding that comes with striving toward a common goal. It's important to remember, however, that poorly designed teams can waste resources and time. Teams should always be used judiciously." (*When Good Teams Go Bad*, 2007)

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## Appendix

### The Two-Column Case Model

#### **The Two-Column Case Model**

The Two-Column Case Model is designed to assist you with stepping back from unsatisfactory conversations, so you can identify patterns and select learning goals. An unsatisfactory conversation is any one that ends with you not feeling good about the results. You might be angry, disappointed, frustrated or just confused, but that's not what you hoped would be the outcome.

Identify three or four unsatisfactory conversations you have had. For each, complete Part A. Recreate, as best you can, the most important parts of the conversation. Recount both the spoken dialogue and the unspoken, what you were thinking and feeling at the time.

Then answer the summary questions in Part B to identify themes across the cases and to develop communication learning goals.



**Part A: One Conversation**

**Situation:** Who was involved? What is the history?

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**Intent:** What were you hoping to achieve/ trying to accomplish?

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<b>Spoken Dialogue</b>	<b>Internal Dialogue</b>
<i>(Your best recollection of what was said)</i>	<i>(What you were thinking and feeling, but not verbalizing)</i>

## Part B: Themes and Learning Goals

Look at the cases you wrote in Part A and answer the following questions.

In these cases, did you:

- Share your intent with the other person?
  
- Clearly share your opinion about the topic?
  
- Explain what facts and/or experiences your opinion was based on?
  
- Ask if the other person understood your views?
  
- Make sure you understood the other person's intent and opinion?

If your answer, across your cases, to any of these questions is "No", then you have just identified an area for learning and practice!

Based on the case model developed by Chris Arygris, *Reasoning, Learning and Action: Individual and Organizational*, San Francisco: Jossey-Bass, 1982.