



# *Team Process Report*

**Course Title:** Communication and Team Building in Engineering Management

**Course Number:** ETM 522/622

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**Team:** 3

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## **Introduction**

One of the strengths and the challenges of the ETM program is the requirement for class project teams in each of the courses. Although the regular exposure to the dynamics of working in teams can provide good preparation for the working environment, it can also add an extra element of difficulty to the course work when the team does not function well. In this class, the entire focus of the course was on teams and communications within teams; therefore, the dynamics of the class team was precisely the point of the course. The added challenge was that the team was responsible for regularly creating and presenting lectures on course concepts. This format meant that the team had to consistently interact and perform throughout the term. The option of dividing up the syllabus at the beginning of the term and not convening again until the end of the term was not an option.

We have reviewed how our team has functioned in regards to the weekly class topics and evaluated how we performed in relation to each. In addition to this in-process review, at the end of this paper we decided to include personal statements written independently by each of the team members about their impressions of the team and how the team functioned. It is interesting to note that the results of the end-of-term personal statements are in line with the results of the team evaluation radar chart that was completed as part of a class exercise in Week 5. Each team member had a consistent view of how the team functioned. Although it was technically a 10-week class, this paper only considers Week 2 through Week 7 since those were the weeks when course materials were covered.

## **Week 2**

Week 2 embodied the “forming” stage of team development. It was our first time working together so mutual trust and understanding, as well as team cohesion, were starting to form but had not fully developed yet. When we met for the first time, it quickly became clear that all team members understood the meaning of working as a team because we all had worked in teams before, even though everyone had a different experience with teams. Members were very open and receptive to maximize their performance and to learn new skills in communication and team building. Responsibilities among the team were divided based on each team members’ knowledge on the topic, time availability, and interest in the subject. One advantage of having a smaller team with a diverse work experience background was that we rarely had areas of overlap in expertise. Our individual experiences were different enough that there was always someone who had a real world example to provide on each topic. We have implemented the strategies as deemed necessary to improve the performance of the team, although in hindsight we should have applied more of the structured approaches even though the team’s performance did not necessarily require it.

The key factors that contributed to increase our team performance were the contributions to discussions and equal division of tasks. Team members were very open with sharing their opinions and ideas, as well as accepting other member’s opinions. After sharing all the ideas, we discussed them and established clear goals with assigned tasks for everyone on the team. This method fit with the strategy that we studied in the course about brainstorming.

Most discussions happened face-to-face in weekly meetings and occasionally by email if there were any ideas that came up after the meeting. Face-to-face meetings helped the team members get to know and understand each other individually, and the communication style that every team member used gave the opportunity for each member to convey their opinions and ideas to the other members. By the end of the meeting, each member knew which tasks they were responsible for and which tasks were going

to be done by others. We did not establish specific roles in our meetings; we just started brainstorming and discussing ideas until we come up with clear goals. Although not as structured as the methods taught in class, this format worked for us. Its success was possibly due to each team member's strong knowledge of and experience working in teams.

We divided the work fairly and equally in a way that insured commitment of all members. The team also recognized capabilities of each member and assigned tasks as appropriate. The team decided to individually divide out the selective readings that were assigned to the team. Each individual in the team was assigned to write a summary about their selective reading. The summary was then sent to everyone in the team for review. Each team member was committed to complete the assigned tasks. Although our meetings did not have written agendas, one of the techniques our team used to document meetings and confirm everyone understood their responsibilities for that week was to send an email after the meeting with the meeting summary and list of task assignments. Since we quickly developed trust in each other to complete the assigned tasks on time, we did not have to continually ask each other about each other's task status.

### **Week 3**

The main topics covered this week related to high performance teams. "A team is a small number of people with complementary skills who are committed to a common purpose, performance goals, and approach for which they hold themselves mutually accountable. [3]" We believe our team fulfilled Katzenbach's and Smith's definition of a team. We all carried a varied technical and functional expertise that added diversity to the knowledge pool of the team. We were able to make decisions effectively and efficiently by being open to each other's ideas, respecting one another's opinions, and making sure that we all gave feedback and participated in the decision-making process. Although our team did not face any problems or issues, I believe that we would have been able to work through them effectively. We also communicated with each other on a regular basis, and all were responsive to each other. Because of this, I believe our team functioned as a real team, and if given the time could function as a high performing team.

Our team was committed to a common purpose: succeeding in the class by not only learning and teaching the team process, but practicing it and applying it to real life or work situations. Fannie was able to bring the newfound knowledge of the team performance curve to her work setting in hopes to assist a colleague in bringing a working group to the real team performance level using concepts learned in the class. Our success in the class was also our common performance goal, which we have achieved so far as reflected in our assignment grades.

We also learned about working in teams. While we did not create a work plan for our group work, we were all aware of the deadlines for various assignments and turned everything in on time. Each week that we met we assigned tasks and each person knew what they were responsible for and when the task was to be completed. Considering that the work was very straightforward there was really no need for a work plan, but it would have been a very helpful tool to use.

One of the areas where we were lacking was in having productive meetings continually. For the majority of our meetings we were productive, but on some occasions our meetings had slow starts because we were not all clear on the objective of the meeting. We did not have a team leader, so no one was responsible for creating meeting agendas and facilitating meetings. We had productive meetings overall, but with an agenda we would have been able to get on task from the very beginning of the meeting. We

also did not assign meeting roles at the beginning of each meeting. Because we did not have a meeting leader, we would just jump into a discussion without much structure, though we were able to make decisions and come up with next steps. There was really no need for a timekeeper, and someone would always volunteer as the note taker at each meeting. Meeting evaluations were also not conducted at our meetings, but we always made sure that we were all on the same page at the end of the meeting.

The team did not always utilize extensive brainstorming techniques, although the idea sharing process to develop each presentation was usually an informal brainstorming session. Essentially our technique was to discuss each other idea's and choose the idea that seemed to work best with what we needed to accomplish. Each person gave input into any idea that was selected, and we made sure that there was mutual agreement before making a final decision.

#### **Week 4**

During this week we learned about moving from an individual to team performance and building team performance. Our group definitely moved up the team performance curve fairly quickly. With the timing of the class, it was very important that this happen as fast as possible for us to maximize our team performance from the very beginning.

We also learned about force field analysis and interrelationship digraph. These were tools that we did not have to utilize as a team because we did not come up against any team issues or problems.

#### **Week 5**

In Week 5, we learned about the stages of team growth, riding the team roller coaster, and the recipe for a successful team. In one of the exercises done in the class using a radar chart, it was determined that each team member had a similar perception of the stage we were in, which was the performing stage. Our chart is depicted in the figure below. Because the chart is almost fully concentric and the "performing" graph is the outermost, this means that the team is in agreement that we are in the performing stage.

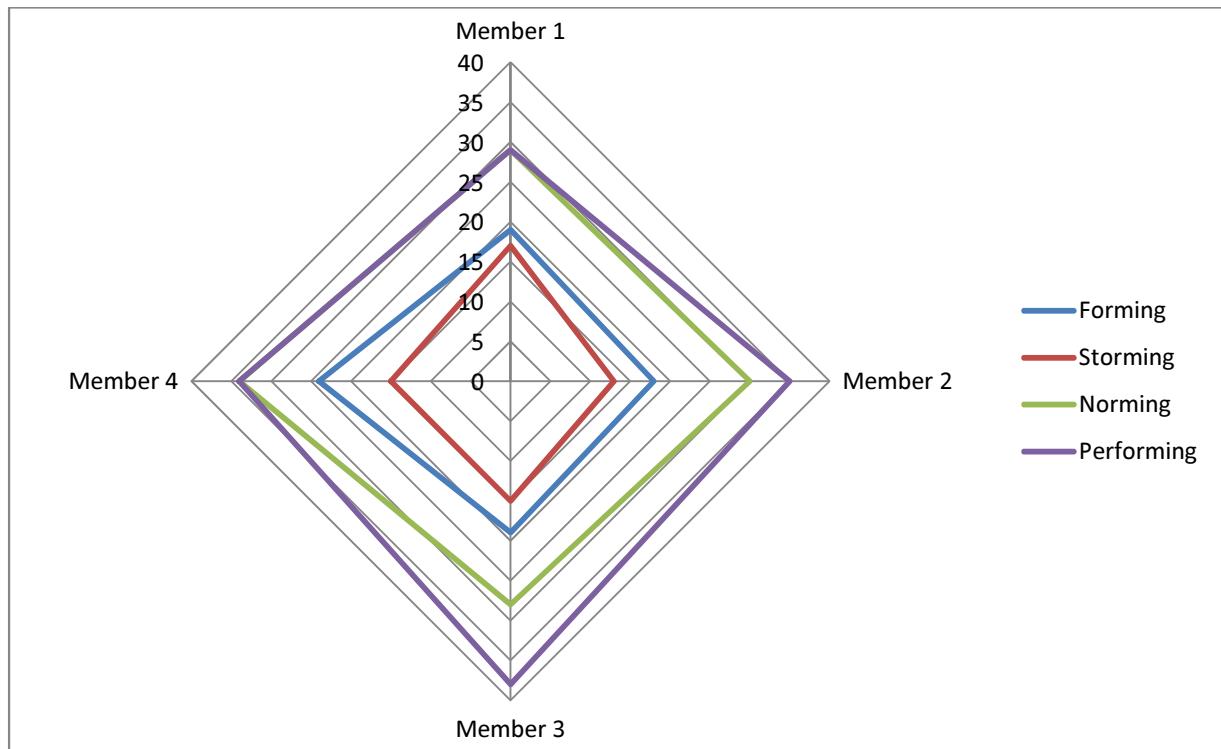


Figure 1. Radar chart showing team's perception of team growth stage

Riding the team roller coaster was not an issue the team had to deal with. But, this team was only together for a short 10 weeks, which may not have been enough time for the team to go through highs and lows or any face the other obstacles or problems associated with the team roller coaster concept.

The recipe for a successful team was also a topic that was covered during this week. Our team definitely utilized most of the ingredients for a successful team. Each team member understood the purpose of the team, which was to learn and teach the course content effectively, turn in assignments on time, and receive a satisfactory grade in the class. The team did not develop a work plan; however, one was not needed, though it would have been a very helpful tool for certain goals.

The team did not establish team roles, which incidentally did not become a major issue, but the presence of a team leader could have helped in running more efficient meetings. Some meetings took some time to get started because the goal of the meeting was not defined beforehand. Despite the lack of a clear leader, meetings were still conducted in productive manners. Each team member spoke clearly and directly, listened actively to each member's contribution, and was respectful by not interrupting others.

Each team member demonstrated an array of beneficial team behaviors. Each member completed assigned tasks on time, kept on track with discussions, and made sure there was agreement on decisions before moving forward. The team did not establish decision procedures, but this was not necessary for the team to function effectively. Though these procedures were not stated explicitly as requirements, each team member knew that they had to present ideas supported by data and decisions had to be

made by consensus. Each team member was encouraged to participate in all group discussion and decisions. Before any decision was made, each member was expected to provide feedback.

The team did not establish ground rules. If the team was required to work together for a longer period of time, this would have been a more essential step in the team process. Since each team member was very aware of the group process, issues did not arise that required the establishment of ground rules. All decisions were made as a group, and communication was open enough so that when there was occasional disagreement, it was worked through in a way that we all felt good about coming to a final decision and moving forward. Although it was not officially stated, each team member knew and was able to support any of their ideas with data. That was the extent of the need and use of the scientific approach in the group.

### **Week 6**

This week we learned about constructive feedback, dealing with conflict, and managing group problems. Fortunately, the group did not experience any major problems so these were issues that did not have to be addressed within our team.

We also learned about knowing when and how to end. This will not be an issue for the team, since the end date is determined by the professor. Despite a clear end date, we recognize at the conclusion of our team that our functionality had been very good. Our gains had been substantial in that we had been able to come together and within the rhythm of a one hour-long meeting per week and present nearly six hours of material successfully.

### **Week 7**

Although the concepts covered in Week 7 will likely be critical in job situations, they did not actually have much applicability to our team experience. The main lessons were related to dealing with team conflict and problematic team members, as discussed in the "Ten Common Problems and Solutions." Our team worked together well from the very beginning and each member filled roles as needed with little management needed from the other members. Since our team was responsible for presenting these concepts, we had to draw on experience from outside work environments to provide real world examples to the class.

Interestingly, there were situations during the class where we were able to apply the Week 7 concepts, but it was towards the class and not within our team. During our presentations, there were times where certain class members would dominate the conversation while others would not participate at all. Other times, the conversation got far off topic or classmates of opposing views had trouble fully listening to the other side of the argument. Even though the concepts for dealing with these situations were not formally covered until the last week of class presentations, we unknowingly found ways to deal with these issues throughout the term as both the leaders of the class session or active participants. A sign of the cohesive nature of our team was the fact that when these people management challenges came up during our presentations, we worked together as a team to support each other with the difficult person or topic.

### **Personal Statements**

"ETM 522 was a very useful course. I learned a lot of new strategies for team working. I feel the course went smoothly. I think because our teammates are professionals and they all have a strong background and knowledge, they have a great expectation of one another. Moreover, they have an open mind to receive ideas. We never had any problem or big disagreement. We had a great interpersonal relationship, which was based on mutual respect. There were good side discussions regarding past experiences which was very helpful for me by getting more information and learning more about the class. I felt that my performance curve was gradually increasing during the course." – Emad

"Because of our mutual respect for each other and shared goal in being successful in this class, we were able to perform as a real team, and I feel if we were given the time we could perform as a high performance team. We were able to work so well together, and I believe that's what has made this an enjoyable learning experience for me. I would be extremely grateful if all the teams I am on could function as effectively as this one." – Fannie

"This class was a welcome reprieve from the workloads of the other two ETM courses I took this term. It was a very manageable class, and this I feel was a direct effect of our team's performance. We worked very well as team without possessing managerial roles or direct team guidelines. We also possessed a very structured, if not light, rhythm in which our work week oriented itself, and it helped that our meetings were the day before class so much of the necessary work needed was done during our meeting time. Within this weekly structure, and while lacking formal internal structure, our team operated smoothly and efficiently. I felt this was due to a shared sense of responsibility we had and a trust that each member would do their parts well without concern or question. This alleviated much of the stress and pressure as the workload in this team environment was very much distributed and light. Furthermore, each member was a competent speaker and comfortable presenting for extended periods of time, which helped immensely in building a team trust and ownership. In short, our effectiveness made this a very enjoyable class and the team was a pleasure to work with." – Garrett

"I had been warned by previous ETM 522 students that this class took a lot of time and effort so I should be prepared for a large time commitment. In reality, I found it to be one of the most straightforward and manageable classes in the entire department. I think the reason is that our team was very efficient in our working style. We met once a week and everyone came to the meeting prepared so we were able to discuss the concepts we were responsible for presenting and efficiently pull together a plan for the presentation and assign responsibilities. Since everyone completed his or her portions on time, there was little inter-team management required. Overall, I found it to be one of the least-stress classes I've had because the team consistently worked together well." – Karina

### **Summary**

As discussed in this report, this team functioned well from the beginning with little adjustment or management needed during the term. But as with any team situation, there was an initial learning curve during the forming stage as the team got to know each other and understand each other's work style. Karina was used to team environments where everyone worked on their assignments during the weekend, so when the other team members did not email their portions by Sunday evening, she was concerned. But by the second week, she learned that the other team members would send their contributions out by Monday or Tuesday and had adjusted their schedules to be available to pull the

final product together on Wednesday. Although concerned at first, she learned that even though the timeline was different from her other class team experiences, she could trust this team to always complete their work on time and contribute toward finalizing the end product.

The activity that was probably most key to our success was having a team meeting each week. The advantage of this activity was two-fold. First, it gave the team a chance to get to know each other personally and interact outside the classroom environment. Secondly, it provided a structured format to discuss the upcoming assignments and work out a plan for achieving the tasks. The meetings usually lasted one hour and were always at the same time, on the same day, and in the same location, so it was easy for everyone to plan their personal schedule around them.

Although we had a very successful team we also realized in hindsight that we were lucky that our team naturally worked well together. The only consistent critique we had during the term was that we did not put into place guidelines and procedures that would have been critical if we had ever run into issues. Luckily, it was never a problem; but, had an issue with a team member or a deliverable arise we would not have been as well prepared to handle it as we would be with a stricter format and structure to our team.

## **Conclusion**

The members of Team 3 did not have a previous relationship or work experience with each other. It was an unknown variable when we decided to form a team and tackle the ETM 522 course together. Luckily, we quickly fell into the natural rhythm of a performing team, and although we learned many valuable concepts in the class about how to deal with challenging teams, we did not need to apply them to the team. As we look back through our comments and experiences throughout the term, we are appreciative that our team ran so smoothly and our members were so well matched to each other.



## **References**

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