

# THE MOUSE GAME AND ITS EFFECTS ON TEAM INTERDEPENDENCE

Derek Gabriel Hall  
Eckerd College  
Halld@eckerd.edu

## ABSTRACT

*Some organizational behavior researchers (Morgan et al. 1986) say that the term “team” is reserved for a set of two or more individuals who interact interdependently and adaptively to achieve specified, shared, and valued objectives (p. 3). Some people might say that the most important term in the definition is the adverb, “interdependently”. Without interdependence, individuals would go about their tasks and functions without any collaboration on a common goal or objective, leaving the concept of the team in question and to produce low levels of efficiency and effectiveness. Team interdependence is defined as the way in which the members of the team are linked to one another (Colquitt, Lepine & Wesson, 2009, p. 379). The linkage between the members can be goal-oriented, task-oriented or even reward oriented. However, task interdependence is the most common type of procedure to occur within a team. The Mouse Game helps colleagues and peers understand the different types of task interdependence as well as the importance of team interdependence.*

## INTRODUCTION

In the corporate world, many people like to think that they work in a team on a day-to-day basis. To support this argument, Stewart, Manz and Sims Jr. (1999) believe that every major U.S. company is currently trying or considering some form of empowered work teams (p. 7). But the reality is that some organizations fail to see that their employees are only working in groups and may not be working towards a common goal. For example, co-workers who meet on Fridays to discuss their projects from the past do not necessarily form or act as a team. We will thus focus on two significant terms: team and interdependence.

Most organizational behavior researchers differentiate between the term “team” and group. According to some scholars, (Morgan Jr., Glickman, Woodard, Blaiwes, & Salas 1986), a team is defined as a set of two or more individuals who interact interdependently and adaptively to achieve specified, shared, and valued objectives (p. 3). Back to the previous example, these co-workers are not interdependent on one another since there is no set goal that these co-workers want to accomplish. Therefore, groups are interactions among individuals and teams are individuals who interact with purpose.

In Morgan Jr. et al.’s (1986) definition, one can point out the important segment in that sentence that distin-

guishes a group from a team: “interact interdependently” (p. 3). Interdependence is defined as “dependence on each other” or “mutual dependence” (2010). This means, in accordance to Colquitt, Lepine & Wesson, (2009) team interdependence is the way in which the members of the team are linked to one another (p. 379). The fact that every team member’s success, or failure, can be determined by the contribution of its other peers simply exemplifies how important this concept is to a team. Without interdependence, these work teams would simply transform back into groups with no goals, no empowerment and no effectiveness. Interdependence can be classified into three types: goal-oriented interdependence- which is the linkage between the individuals through their specifically assigned goals, task-oriented interdependence-the relationship between team members through their day-to-day operations, and reward-based interdependence-the incentives donated to a team as they accomplish their goals, through team collaboration. According to Colquitt et al. (2009), interdependence is most often thought of in terms of the interactions that take place as the team accomplishes its work (p. 379). Therefore, this paper will center on the more common type of team interaction: task interdependence.

Team work can be considered task interdependence due to its similar definitions, the way in which teams contribute to work. Task interdependence can be broken down into four different types of processes: pooled interdependence, sequential interdependence, reciprocal interdependence and comprehensive interdependence.

- Pooled interdependence can be defined as team members that work independently on tasks and then combine their tasks at the conclusion of their projects.
- Sequential interdependence requires the team members to work in prescribed order in order to finish a task. A common example of this type of interdependence is that of an assembly line in an auto-manufacturing plant.
- Reciprocal Interdependence is similar to that of sequential interdependence in the fact that specific task are performed by team members, yet there is no chronological order to finish the project. The interrelationship is the driving force of this type of interdependence. In short, a team member’s contributions can become the outputs of another team member. An example of this type of interdependence is customized house designers. The contributions of the general contractor, the architect, the electrician and plumber become the output of the customized house.

- Comprehensive interdependence exists when highly empowered team members have high levels of interaction and coordination. Through collaboration, comprehensive interdependence eliminates groupthink and stimulates the team members toward achieving the goal.

Each of these interdependences has a different level of difficulty, and it is often said that teams have to evolve from the lower levels of interdependence before they can reach the ultimate comprehensive type of interdependence.

## BACKGROUND

To many employees, their creativity is left behind when they come to work. When they arrive on the job, they adhere to orders from the top down. Some employees are forced to park their ideas at the door. This maybe a sign of ignorant [antiquated or hierarchal] management, but this might also be a situation where the organizational structure has left out the lower level employees, often to the detriment of the organization and the individuals excluded. As stated earlier, groups are individuals who interact, and this is a common example in the oligarchic and hierarchal organizational structures. With only a few people making the decisions and providing the input, downward communication takes over and team empowerment vanishes. When only a couple of people at the top of the hierarchal structure have the authority to make decisions, some problems can become visible. Executives can sometimes ask for input from their lower employees to find more efficient and effective ways to make their company operate better. Sometimes not asking for insight from other employees, could lead to decision makers failing to see the insight from other employees and only make decisions that they believe is right. This process, which is a tendency for groups, such as upper-management, to ignore alternatives when making decisions, is called groupthink, which can be ultimately detrimental to the organization. Subsequently, those employees will start to see no intrinsic rewards for their performances, which results to them “hiding” within the organizational structure. So while most companies in today’s society have an “Eiffel Tower”, or hierarchal/oligarchic organizational structure, many companies have opted to become “flatter”. Even the most profitable, forward looking firms, such as Google and Research in Motion, recognize the value and interdependence of teams.

Research In Motion (RIM) Co-Chief Executive Officer, Jim Balsillie, supported the latter by saying his internal communications were more fluid than hierarchal, which results in “flattening” his organization: “Formal controls create a way to hide because you can hide in the system – there are teams and groups and the transparency and collaboration makes it pretty hard to be a renegade...” (Carayannopoulos, 2007, p. 21). Balsillie also understands that team interdependence becomes more important to a company as it expands, like RIM did in 2007 when

the creators of BlackBerry expanded to 6,250 employees from 1,850 in 2003 (Carayannopoulos, 2007, p. 21). Balsillie states, “They (employees) see how they’re interdependent and how each part is the other and counting on it” (Carayannopoulos, 2007, p. 21). By examining the words of Balsillie, we can make the argument that team interdependence is a concept that must be cared for and carried out throughout the organization.

Another very important idea is that of synergy, where the sum of two plus two equals five, not four. Eric Schmidt, Chief Executive Officer of Google believes that it is the interaction within teams that creates synergy. Schmidt states that, “innovation always has been driven by a person or a small team that has had the luxury of thinking of a new idea and pursuing it. There are no counter examples.” (Manyika, 2008) Ideas are emerging due to synergy, through strong interaction, at Google. Schmidt (Manyika, 2008), says that at Google, “we try to encourage [innovation] with things like 20 percent time, and the small technology teams, which are undirected. We try to encourage real thinking out of the box.” Putting teams together provides synergy, which can create value down the road. This theory has often demonstrated and depicted success for Google with innovations such as Google Earth and Google Chrome, the company’s new intuitive web browser.

It is clear that not all firms are going to be as savvy about the importance of team skills and relationship development, but almost all firms recognize the value that teams can add to the way they conduct their business. These organizations also recognize that hierarchical models are disappearing fast in the global marketplace largely because they are wasteful with regard to talent management, specifically, management of intellectual and social capital.

According to Colquitt et al. (2009), task interdependence is the most common type of interdependence to occur between team members (379). This is a simple assumption since work is a day-to-day interaction between members. Many teams operate differently and require different forms of task interdependence. These forms are explained, in detail, in Appendix A. Some forms of task interdependence are more effective than others, depending on the size, composition and function of the team. However, it is important that employees (both future and current) understand which task interdependence works best for their respected teams.

There are many ways to teach team and task interdependence. However, experiential activities and simulations are the most effective ways to help the participants understand different concepts through an interactive experience. By monitoring the participants’ actions and conversations, professors or facilitators can give feedback and communicate the relationship between the topic (and/or theory) at hand and the simulation. Many participants have trouble absorbing all of the pertinent information out of a class lecture, staff meeting or training session due to the immense amount of dialogue and the lack of peer to peer interaction. By pursuing in an activity or simulation, concepts and theories are relayed to participants with ease with less

time being used. Thus, we now focus on the implementation of The Mouse Game.

## **PURPOSE**

This game demonstrates organizational behavior as different types of team task interdependence. By delivering instructional material as a game, participants can experience the importance of depending on other team members and put the different types of task interdependence into practice in a creative, non-threatening situation. The game is simple and concise and keeps participants engaged in the activity. The purpose of The Mouse Game is to teach the participants the importance of team interdependence as well as task interdependence.

Since organizations are trending toward “flatter” structures, companies need their employees to function effectively and efficiently as possible, often in teams. Consequently, a higher level of interaction and coordination is needed throughout the organization so that all team members continue to stay on the same page towards reaching the organization’s goals. Therefore, team and task interdependence are the vital tools and trends that build today’s organization’s intellectual capital, the collective knowledge of the individuals, and its social capital, the connection between the people who work in the firm. The following game is designed to teach the relevance of these skills at the undergraduate and/or organizational level.

## **THE MOUSE GAME**

The goals of the game are: to enhance the learning experience of team and task interdependence; to demonstrate the different types of task interdependence and stress the importance of interaction and coordination between team members. The game allows the teams to work in four different ways to create four drawings of the same character ( At the end of the game, the facilitator/instructor should discuss with the participants what kind of lessons, concepts or ideas did the participants observe from the game.

## **TEAM SIZE**

Any manageable size group of participants who may or may not know each other well will work in this exercise. These participants then must be divided into sub-groups of three to four people.

## **TIME REQUIRED**

Thirty-five to forty-five minutes, based on the number of participants. (Time variations might need to be altered depending on the size of the group as well as the composition of the group, refer to Variations section for specific time requirements).

## **MATERIALS**

- Permanent marker for each participant
- One blank sheet of paper for each participant
- One Instruction Packet for each team. Instruction packet includes: Introductory page, Doodle pages that are number one to four (with specific instructions on each of the four pages), and a final assessment page.
- One pair of scissors for each team
- One glue stick (or supply of glue) for each team
- One picture of the mouse character that the teams must copy. This picture or image can be displayed via projector or can be on a print source.

## **PHYSICAL SETTING**

Any area large enough for participants to be seated comfortably as well as ample drawing/writing surfaces for participants.

## **PROCESS**

1. Distribute materials in advance to each team. The instruction packet should be distributed last (face down) to each team. The distribution of the instruction packet can be altered in order to reduce confusion among teams and team members (Refer to the Variations Section for this matter).
2. The instruction packet provided gives ample instructions and details about how the game will take place. Read the introductory page of the packet. The instructions will state that these teams are the new employees of the “The Mouse Doodling Company”. Before the teams can begin work, they must complete the mouse workshop (the game) first in order to tests their team’s abilities to recreate a drawing, or “doodle”, of the mouse.
3. Explain to the teams that there are four different ways to recreate a doodle of The Mouse (Note: each of these “different ways” will make a team exhibit a different type of task interdependence). Display the picture of The Mouse to provide a visual benchmark for these subgroups. All teams: must have interaction from all of its team members (meaning they must participate in every doodling process); must partake in all four of the different processes, not just some; and should submit their best mouse doodle for a supervisor evaluation when they are finished.
4. Instructions are listed for every doodle for how the doodle is to be completed (Refer to Appendix B for specific team doodling processes). These teams are to create their doodles of the mouse on the back of each corresponding instruction sheet (this helps the facilitator record how the team went about creating each of their doodles).

5. Allow ample time for teams to finish their doodles in order for the full effectiveness of the game to take place. Once the ample amount of time has expired, ask the team to finish their doodles and to turn in their best recreated doodle of the mouse.
6. Once all the proposed doodles are submitted, have the facilitators chose a winner (See Variations section for further details).
7. Debrief the teams by asking what did they experience, observe or notice during the course of the game. Discuss the effects of Team and Task Interdependence on The Mouse Game (Refer to Appendix B for the correlations between the different types of task interdependencies and the team doodling processes). Sum up the game by explaining the importance of task interdependence in a team setting and how this experiential learning activity can be applied to real-world team situations.

### **VARIATIONS**

- A suggestion might be to alter the distributing of the instruction packet. In an effort to race against other teams, and race against the clock, teams might rush their team doodling processes by undertaking all four doodles at once, which can cause ultimate confusion among team members and the doodling instructions might not be followed correctly. To simplify the flow of paper, facilitators can hold back on giving out the entire packet at once and only hand out doodle instructions to teams when they need it. For example, there may not be a need for a team to receive the instruction paper on how to create doodle #3 when the team is not even close to finishing doodle #1.
- The time allotted for the team doodling processes is an important aspect of the game. It is important that participants have enough time to complete their doodles. At the same time, it is also in the best interest to not keep teams hung up for a long period of time the doodles to the point where they loose focus on the activity. Facilitators want to find a happy medium of time for this activity. Since the participants of the game are unknowing to the methods which the Mouse doodles must be recreated, a fair suggestion might be to segment the times allotted for working on the different doodles, especially for younger participants (ages 19 and under). The new time requirements might look like this, for example: “Every team starts on doodle #1 and has five minutes to work only on that doodle. Once those five minutes have expired, all the teams must move on to doodle #2 and they have 5 minutes to complete doodle #2. Teams can not go back to work on doodles after their times have expired. And so...”
- Step 7, the “choosing a winner” step, can be left out of the game. No objective has to be met or winner has to be chosen for this game. However, to add the competitive edge to the game, facilitators can choose to imple-

ment a winner to the game or not. The winner also does not have to have “the best doodle”. The winning team could be decided by which team finishes all four doodles first, demonstrating the relationship between task interdependence and efficiency.

### **CORRELATIONS BETWEEN TASK INTERDEPENDENCIES AND THE TEAM DOODLING PROCESSES**

One of the main points of the experiential learning activity was the demonstration of task interdependencies in the team doodling process of the game. By having the teams draw four doodles of the mouse, the game is able to implement all four processes into the teams’ doodles.

Doodle #1 process represents the pooled interdependence relationship within a team. By doing individual work and team members barely interacting during their doodles, pooled interdependence best reflects the team’s process during this doodle. Colquitt et al. (2009) best explains it, “Consider what pooled interdependence would be like on a fishing boat. Each fisherman would bait his or her own pole, drop the baited line into the water...At the end of the day, the boats production would be the weight of the total fish caught.” (p. 381) The doodling teams experiences the same type of situation by drawing their own body parts of The Mouse, only meeting at the end of the doodle to put the pieces together.

Sequential interdependence should be experienced in doodle #2. By drawing the Mouse character in a sequential, step-by-step form, the team reaches its end goal of a finished The Mouse doodle. All team members participate by adding their contribution to the doodle in a chronological method until the doodle is finished. Similar to an assembly line, the product moves down the chain with each member adding their body part (ears, nose, face, shoulders, arms etc).

By having the team members interact with each other by instructing them to draw different parts of the cartoon shows the reciprocal interdependent function within the team. As stated earlier, reciprocal interdependence basically takes the contributions of one team member and makes it an output via another team mate. This can be demonstrated in doodle #3 with the audio instructions of one team member (the contribution) and the corresponding drawing of the other team member (the output). This requires a high amount of interaction and coordination among team members since everyone has to give audio instructions as well as draw.

Comprehensive interdependence requires team members to solve problems, if they arise. Though there was no problem in the game, the teams are allowed to use their own creativity and imagination on doodle #4. This situation forces team members to collaborate on a common method to reach their common goal. Some groups came to a con-

sensus that they all should have an input on the doodle, while others evaluated that one team member was a better artist than the rest of the group. The basic idea on this doodle is that there is no one right way to design the task assignments of a doodle.

## FURTHER RESEARCH

Team and task interdependence can be demonstrated through the team doodling processes in The Mouse Game. However, the game provides multiple paths for development. Some research that can help enhance the effectiveness of the game is through testing it with diverse populations. By testing the game on diverse groups in a variety of organizational contexts, the Mouse Game can be examined with regard to its impacts on individual, team and organizational performance. Implementing the game as part of corporate training curriculum or in a class of adult learners, could demonstrate improved team performance. Although the game is still in early stages of development, variations are being considered. By monitoring the evolution of the game, facilitators and participants alike can eventually innovate the best ways to teach to their group about team and task interdependence.

## CONCLUSION

Work teams appear in almost every aspect of the business and management functions of late. Understanding how and why teams interact is essential for developing empowered individuals who are part of interdependent teams that add value to an organization. The Mouse Game is one tool

that can help us harness the power of team interdependence and can open our eyes to the endless possibilities individuals can reach when they are involved in teams. Through intervention, coordination and interaction, we too can harness the magic of the Mouse.

## REFERENCES

- Carayannopoulos, S. (2007). Research in Motion – Entering a New Era [Case Study]. *Strategic Management: Formulation, Implementation and Control*. New York, NY: McGraw-Hill. P. 20-1 – 20-23.
- Colquitt, J.A.; LePine, J.A. & Wesson, M.J. (2009). *Organizational Behavior: Improving Performance and Commitment in the Workplace*. New York, NY: McGraw-Hill.
- Manyika, J. (2008, September). Google's view on the future of business: An interview with Eric Schmidt. *The McKinsey Quarterly*. Retrieved from [http://www.mckinseyquarterly.com/Google\\_view\\_on\\_the\\_future\\_of\\_business\\_An\\_interview\\_with\\_CEO\\_Eric\\_Schmidt\\_2229](http://www.mckinseyquarterly.com/Google_view_on_the_future_of_business_An_interview_with_CEO_Eric_Schmidt_2229)
- Morgan Jr., B. B.; Glickman, A. S.; Woodard, E. A.; Blaiwes, A. S. & Salas, E. (1986). *Measurement of Team Behaviors in a Navy Environment* [Technical Report No. NTSC TR-86--014]. Orlando, FL: Naval Training Systems Center.
- Stewart, G. L.; Manz, C.C. & Sims Jr, H. P. (1999). *Team Work and Group Dynamics*. Danvers, MA: Wiley.
- Interdependence. (n.d.). In *Dictionary Definitions*. from <http://www.yourdictionary.com/interdependence> Retrieved January 14th, 2011.

## APPENDIX A

### The Team Doodling Processes

The following instructions are the team doodling process which the team members must read prior to beginning the doodle. Each team member must participate in every doodle and can not sit out or take turns with other team mates. Team members must pay close attention to the details of the processes and should follow the instructions as they are written.

#### **Doodle #1:**

In this doodle, each member of the team is responsible for drawing a certain body parts of the Mouse on the blank piece of paper provided to each team member.

For Example:

If your team has a group of 4, the team's responsibilities should look like this:

- Team Member 1: Draw the head and face of the Mouse
- Team Member 2: Draw the upper body (chest, arms and hands) of the Mouse
- Team Member 3: Draw the lower torso (shorts) of the Mouse
- Team Member 4: Draw the legs and shoes of the Mouse

If your team has a group of 3, go by these responsibilities:

- Team Member 1: Draw the head and face of the Mouse
- Team Member 2: Draw the Body (chest, arms, hands and shorts) of the Mouse
- Team Member 3: Draw the legs and shoes of the Mouse

Once your team members have finished their parts on their own separate pieces of paper, cut out the parts and assemble the mouse doodle on the back of this instruction paper. Assign one person to assemble the parts together. Once your team has finished, advance to Doodle #2.

#### **Doodle #2:**

In this doodle, each member of the team is responsible for drawing a certain body part of The Mouse. Your team members should use the same responsibilities they had in Doodle #1. This time, draw each part of The Mouse sequentially.

For Example:

Team Member 1 starts with the paper and draws the face and head of The Mouse. Then Team Member 1 passes the paper to Team Member 2 who then draws the Upper Body of The Mouse, etc. Draw your doodle on the back of this instruction paper. It is important that you draw this doodle sequentially (draw from the head down to the toes, or vice versa). Once your team has finished, advance to Doodle #3.

#### **Doodle #3**

In this doodle, each member of the team is responsible for drawing a certain body part of The Mouse. Your team members should use the same responsibilities they had in Doodle #1. Except this time, each member will be told how to draw their respected body part of The Mouse.

For Example:

Team Member 2 starts with the paper. Team Member 1 will tell Team Member 2 how to draw the Upper Body of The Mouse. 2 will then pass it on to Team Member 3 once they are finished. 2 will tell 3 how to draw the lower body of The Mouse. 3 will then pass it on to 4 and instruct them how to draw the next part, etc. Continue process until your team is finished with the drawing of The Mouse. Draw your doodle on the back of this instruction paper. Once your team has finished, advance to Doodle #4.

#### **Doodle #4:**

Now be creative. Your team can now use whatever method you like to recreate the doodle. Use any method that your team chooses and create a doodle of The Mouse. This method may be one your team did previously (like doodle #1, #2 or #3) or it may be a *completely* different process. Draw your doodle on the back of this instruction paper.