

# The Team Milestone Process: Integrated Team Activities to Track Team Development

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## **Abstract**

The well established use of teams in the classroom and in business has increased the need for teaching students tangible team skills. More than merely imparting knowledge about teams from an abstract perspective students need to graduate with effective team experiences. This paper presents a milestone process that helps students develop as a team and provides students with the opportunity to reflect on and learn from their experiences. As students familiarize themselves with different team processes and dynamics, this process allows students to hone their team skill with feedback from instructors who now have an additional tool to monitor and coach the students on an ongoing basis. For example, the milestone process allows the instructor to provide students with an early progress report on their semester projects while giving the instructor an opportunity for course content clarification and valuable early feedback that students can use for project revision. This paper describes the team milestone process along with instructions, grading, and possible modification and also presents feedback from instructors and students after use in an undergraduate organizational behavior course.

**Key Words:** Experiential learning; classroom teams; team dynamics, milestone process, reflection, Kolb's Learning Cycle, and, group development

The use of teams in the classroom and workplace is well established. Experiential exercises are sometimes designed for use in class where instructors can observe and provide feedback. However, instructors also assign team projects that require students to meet outside of class and what happens outside of class is often unknown to instructors. Students, when in crisis, may come to the instructor for help but most of the work is accomplished outside of the instructor's purview and only the final product is graded without prior input. This time outside of class is fertile ground for students to learn about and develop team skills and need not be a mystery to the instructor.

The team milestone process, described in this article - hereafter referred to as the milestone process - includes five activities that provide instructors a window into the activities of student teams outside of class while also providing active team process reflection for students. That is, the milestone process formalizes student feedback and reflection along with instructor insight into student team development. This insight moves learning and instruction beyond the walls of the classroom where students may act differently in the context of their peers and permits instructors to make appropriate adjustments in support of team

development. In addition, instructors are no longer in the dark about team progress towards end-of-semester projects. This provides faculty with additional opportunities for directly assisting students by clarifying course content related to final projects.

The team activities described in this article are designed for student teams which have more than one team assignment or whose final team project has a high level of task interdependence (Thompson, 1967), such that assignment completion requires reciprocal interdependence instead of completion in an additive way. For example, a project with reciprocal task interdependence requires that team members work together rather than each student completing a section individually or having one or two members completing assignments for the rest of the team. In this scenario, individual team members must learn to work together and, it is hoped, over the semester to experience the different stages of group development.

Most teams receive feedback on final projects at the end of the semester when there is little motivation to learn from and respond to mistakes and when it is too late for the instructor to make meaningful and timely corrections. The milestone process provides instructors with early information about team progress toward final projects – even when that progress derives from extra-class experiences - and provides a series of indicators about the student's comprehension of course material. More importantly, this process allows for feedback early enough in the semester that students are motivated to understand their mistakes, correct their final projects, and better comprehend their own team's evolution. The use of iterative process in education has been found to improve retention (Huitt, 2003; Sohn & Carlson, 2000) as well as establish groundwork and boundaries which open up dialogic participation (Hyorth, 2001, 2003) and help students incrementally adapt to complex and ambiguous situations (Antal & Friedman, 2008). People learn through experience, but only if experience is reflected on and if assumptions are explored and tested (Argyris & Schon, 1978) through ongoing dialog. Additionally, experiential learning creates an active learning environment by opening up exposure to different contexts (Smith, 2009).

Overall the objectives of the activities in the milestone process are threefold:

1. Provide instructors with insight into group activities outside of class, monitoring group development and progress towards course project learning objectives in order to enhance instructor feedback and guidance.
2. Facilitate student teams progress through the group development process and provide them with a structured process to reflect on and learn from their team experience.
3. Increase of the iterative process between instructors and students related to the teams' final projects.

## **PEDAGOGICAL AND THEORETICAL BACKGROUND**

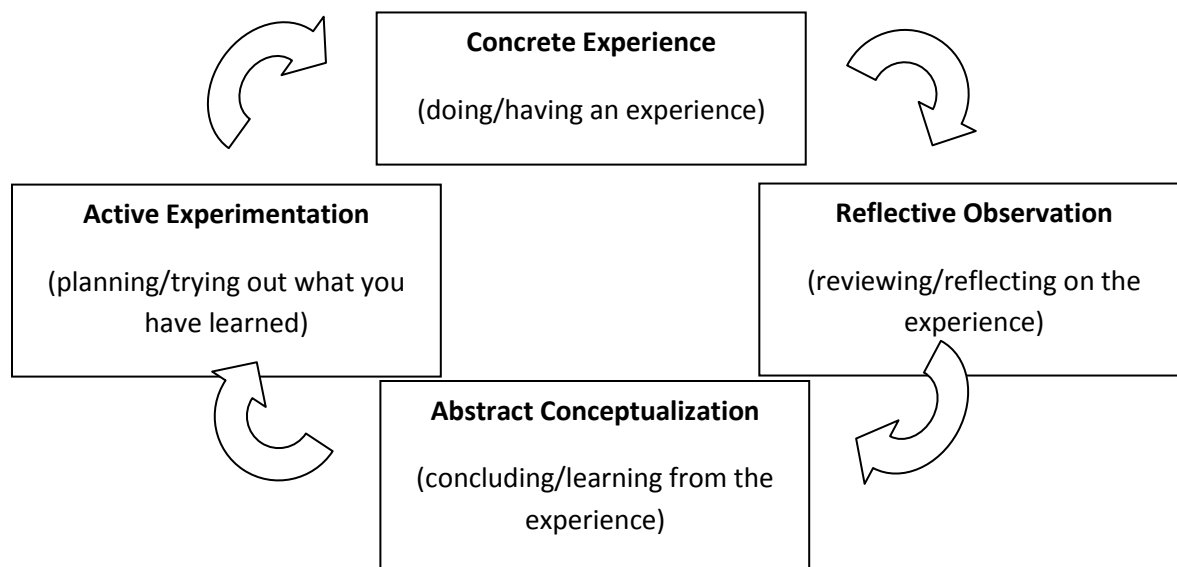
### **Experiential Learning**

The assignment of individuals in to teams ostensibly provides students with valuable experience. When assigned group exercises or projects, one benefit is that experiential group learning facilitated within the classroom can be extended and completed outside of class. Unfortunately, the removal of such a project from the classroom environment often results in decreased instructor knowledge of what transpires among the team members. So, while the

extra-class activity provides an excellent opportunity for learning - about teams and developing team skills in our case – it often comes with an instructor’s forfeit of team details including information on basic team dynamics and more advanced team development.

Kolb defines learning as “the process whereby knowledge is created through the transformation of experience” (Kolb, 1984, p. 38). His theory of experiential learning provides a path for experiences to become part of the learning process. In our case the experiential focus is on team member interaction in a course where most if not all of the project – and team interaction – occurs outside of class. Kolb (1984) describes experiential learning in a four-stage learning cycle: concrete experiences; reflective observation; abstract conceptualization and, active experimentations. See Figure 1 below.

FIGURE 1  
KOLB’S LEARNING CYCLE



Kolb (1984) suggests that the learning cycle may start at any point in the cycle however we will introduce the elements starting with concrete experience and moving clockwise toward reflective observation. Concrete experience in the simplest terms is exactly what it sounds like; a specific experience related to an incident or event. In terms of classroom experiences this may be in the form of writing a paper; participating in an in-class discussion or other assignment. It is this experience that the learner reflects on during the reflective observation stage. In the classroom setting this occurs most naturally during in-class activities where instructors are able to facilitate the process. For activities outside of the class (e.g. written papers) this process is often limited to the student’s interest in reviewing and reflecting on instructor comments.

Abstract conceptualization is the next stage in Kolb’s learning cycle (Kolb, 1984). It is this stage where the learner makes sense of the reflection and begins to explicitly acknowledge the learning by applying it abstractly. Where assignments are returned with grades that cannot be changed there is little extrinsic motivation for students to move into this stage of learning or to

the next, active experimentation. In this fourth stage on the learning cycle the learner begins to actively experiment with the learning identified from the experience through reflective observation. This experimentation completes the learning cycle by leading back to concrete experience.

The learning cycle can easily break down for students if they are not motivated to continue through the learning cycle. As noted above assignments completed outside of class (concrete experience) do not have any inherent extrinsic motivation for students to continue the learning cycle. A key to continuing the learning cycle is reflection. In addition to reflection being a central component of Kolb's learning cycle, Argyris and Schon (1978) suggest that is a critical part of learning. Reflection is also an excellent way to transform experience into knowledge (Du Toit & Wilkinson, 2010; Scott, 2010).

The five activities and related deliverables of the milestone process are designed to provide a mechanism for the learning cycle to occur. This learning cycle addresses the second objective of the milestone process by consistently requiring students to work together (concrete experience), to produce a deliverable that requires reflection on the team's experience (reflective observation), consider feedback provided by the instructor as it relates to their team progress (abstract conceptualization) and finally requiring them to conduct another activity together (active experimentation). The fourth milestone also provides a starting point for the learning cycle for the team's final project supporting the third objective of the milestone process.

### **Cooperative Group Development**

The milestone process was designed around the five-stage group-development model of group development. The model was first proposed by Tuckman (1965) as a four stage model: forming; storming; norming; and, performing. Tuckman and Jensen (1977) latter added a fifth stage, adjourning. The stages of the model are briefly described.

**Forming.** The forming stage was conceptualized by Tuckman (1965) as the testing and dependence stage. It consisted of a testing process to help group members identify the boundaries of the group and task (Tuckman, 1965). Included in those boundaries were organizational standards, the relationships among members, and the relationship of members with leaders.

**Storming.** Tuckman (1965) characterized the second stage by conflict among members. Members may exhibit emotional responses and behavior resistance to group influences and task requirements.

**Norming.** In this third stage resistance behaviors decrease and the members begin to experience team cohesion (Tuckman, 1965). Standards evolve and group members begin to act in consistent roles.

**Performing.** Performing is the last stage proposed in the original model (Tuckman, 1965). In this stage the interpersonal structures are established providing a means for the team to accomplish the task.

**Adjourning.** This fifth stage was added (Tuckman & Jensen, 1977) later following a review of life-cycle literature that viewed the ending of a team as an important and distinct part of the team.

Since its development the model (Tuckman, 1965; Tuckman & Jensen, 1977) has been tested (Worchel, 1994), criticized (Cissna, 1984), developed as a measure (Miller, 2003) and

modifications have been recommended. Some have suggested that the stages are not as simple (Rickards & Moger, 2000) as the originally posited sequential stages (Tuckman, 1965). Miller claimed that storming was not a clearly defined stage (Miller, 2003). Maples (1988) refined the model by adding 20 substages. McGrew, Bilotta and Deeney (1999) made changes in the model specific for software development teams while Cassidy (2007) suggested application for practitioners.

Although Rickards and Moger (2000) suggested a new model that extends Tuckman's model they acknowledge that the Tuckman model "retains its value as a simple means of discussing and exploring team dynamics" (Rickards & Moger, 2000, p. 277). Today, over 45 years after it was proposed Tuckman's model is one of the most cited group development models in education (Cassidy, 2007). In a recent historical review of the development of Tuckman's model, Bonebright (2010) found that the model continues to be widely used in theory and practice.

This model was selected for the milestone process for two primary reasons. First, as one of the most widely used group development models in education, students will likely be familiar with it from past experience or the model itself will be part of the current course content. This familiarity allows the students to have a common framework when reflecting on the team's development. Second, the model is widely discussed and used in practice. As students transition to the workplace they will share a common language and understanding of the group development process with others who share knowledge of the Tuckman framework.

### **MILESTONE PROCESS**

The milestone process consists of five activities that represent the major milestones and require student participation to produce a deliverable for grading. When possible the milestones are due bi-weekly so that instructors receive an ongoing update of the student teams' progress; student teams establish a consistent pattern of meeting and reflecting; and, there is a regular schedule of feedback. The specific milestone activities and actual timing may vary based on student status (undergraduate vs. graduate), course objectives and university resources. The specific milestones and experience discussed here were developed and took place in an undergraduate Organizational Behavior course on and off for over a seven year period. Student instructions for the milestone activities and deliverables that appeared in the syllabus appear in Appendix I.

These activities are designed to assist student teams through the team development process while the deliverables provide an opportunity for reflection and progress toward project completion. Deliverables are typically short papers that account for a small portion of the students' overall grade, allowing students to develop team skills in a lower risk situation than they would in a larger final group project. For example, in the undergraduate Organizational Behavior classroom highlighted here the final group project was 15-20% of student final grades while the milestones were each worth 1-2% of that final grade. This provides students the opportunity to take greater risks within the team and ongoing feedback that can help redirect the team so that they experience greater success with the final, more critical, project.

We have found the milestone process to be useful in helping students follow instructions and better understand instructor expectations. Students often overlook instructions regarding format (e.g. 1 inch margins with 12 point font) or specific content areas.

The milestone process highlights these errors early in the semester, allowing students to recognize instruction importance (format and content) such that they attend to them when completing later, often more critical, assignments.

Each milestone will be discussed along with their implementation, followed by a description of the student deliverable. We then discuss each milestone objective such that the instructor will better understand the purpose of each milestone when customizing them for team development within their course. The evaluation process and additional instructor experience and tips will follow. Appendix II provides a synopsis of the student instruction and the details of the milestones provided here for easy reference.

### **Milestone 1 – Excursion**

The first milestone activity is assigned the first day that teams are established, preferably within the first week or two of the semester.

**Activity.** Students are instructed to take an excursion together off campus. The excursion may include such things as going to a local park, museum, sporting event, cider mill, or bowling alley, just to name a few examples. Students are discouraged from simply going to a restaurant, or remaining on campus. When transportation or other hindrances require students to stay on campus the requirement is that they participate in an interactive activity (e.g. play a game, build a snow man). The students are instructed that the activity must allow them the opportunity to get to know each other. Students in classes exclusively on-line may not be able to perform an activity together but they are able to perform an ice breaker type of activity in the discussion of the electronic classroom. Students are asked to identify their own activities which have included: asking for each team member what they would bring to a deserted island and why; preference between a maid or cook and reasons why; and, if you had a time machine to what era of your own life would you go and reasons why to name a few. They were remarkably effective.

On the first day that student groups are formed, they are given ten minutes in class to meet and discuss the first assignment. They are also asked to identify a team name to be included in their deliverable. Some teams take full advantage of this time exchanging contact information, brainstorming ideas of places to go and discussing possible team names. Other teams take advantage of the opportunity to leave class early indicating that they will talk later.

**Deliverable.** Students must provide a team paper two pages in length. The content of the paper will in part be a description of the events leading up to their excursion and the excursion itself. The emphasis of the paper, however, is for them to *reflect* on the team's experience; discuss how they could have done better; and, identify implications for the future of their team. The most important part of the paper is the way in which the students are able to specifically identify how they will work together differently in the future. It is best to ensure that at least two weekends occur between the time teams are assigned and the paper is due thus providing students with plenty of opportunities to have a successful excursion and time for reflection.

**Objective.** The goal of this activity is to help students through the forming and toward the storming stage of group development. The complexity of navigating an off-campus event (e.g. time, location, transportation) with competing student schedules typically creates an environment where students can establish themselves as a team and begin the process of determining how they will work together during the semester. This includes the type of

resistance experienced during the storming stage, which may be reached earlier in the semester by virtue of an earlier assignment.

**Evaluation.** Students are instructed up front that they will not be graded based on the “success” of the trip. This grading scheme is not intended to give students permission to not go on an excursion. Whether or not everyone went on the excursion or had a good time is not nearly as important as what they learned from the experience. Students are encouraged to be honest about their failings and use them to actively reflect on the team’s future. We base grading, therefore, on the team’s ability to follow instructions (including requirements for papers such as double spacing); writing quality; reflection; and, implications for the future. Greater emphasis is given to the latter two criteria.

**Instructor experience and tips.** Students typically struggle with finding a time, selecting something that everyone wants to participate in, communication and cost restrictions. There are plenty of excursion options that are free. Although some students will choose an activity that costs money, this has never created a problem. It has been our experience that the less guidance provided regarding exactly what the excursions should be usually results in more creative activities. In fact some teams try to keep what they are doing secret from other teams so that their idea is not ‘stolen’. It is fun to discuss each team’s experience on the day their paper is due.

Team experiences vary widely. There are teams who manage to get all their members to an off campus activity and enjoy themselves. There have been student teams where only a couple members participate. Other teams arrive at their destination to find that that venue is closed or that someone did not bring money. Any number of problems arise. These challenges provide multiple reflection opportunities that move them to the abstract conceptualization phase of the learning cycle and prepare them to actively experiment with that learning during their next milestone.

Even though they are instructed that the focus of the paper is on what they learned from the experience, students tend to focus their papers on what happened especially when they had problems, their realization about the value of the project, and how much they have in common along with their surprise that they can relax and hang out with each other. Students have difficulty communicating the “next step” concerning what the experience means for the future of the team. This provides a great opportunity to help students see how they might respond differently if they come up against similar problems on later assignments. Instructors are also able to coach students toward more specific and detailed reflection.

An alternative to the excursion is to extend the first meeting time in class and ask student teams to identify a team name and start the dialogue necessary for the second milestone. We found this less interactive task was less effective at facilitating progress toward the storming stage as the excursion assignment.

### **Milestone 2 – Team Profile**

The second milestone should occur after instructions about groups and teams have been provided. If, as in the case described here, the topic of groups and teams has not yet occurred a short lecture is effective and necessary. The milestone process and the profile provide an excellent outline for the introduction to teams. Students are able to see how storming began in their first milestone and how they are entering the norming stage by considering different elements (e.g. roles) of teams that are required in the profile.

**Activity.** Students are instructed to have a formal team meeting where they can explore individual strengths and weaknesses; team goals; team roles; shared expectations. In particular students are encouraged to talk openly about grade expectations and hindrances to a successful semester.

**Deliverable.** Students are asked to produce a team profile. No page length requirement is given. Rather, students are encouraged to use what space they need. Charts, graphs, and bullet points are all acceptable. Although this profile is submitted only once, students are encouraged to make it a living document updating it as needed during the semester. The profile should include a team identity, roles, and shared expectations as well as other information such as obstacles, roadblocks or other concerns. The team identity should include individual team member information such as strengths and weaknesses as well as team information such as a team name and purpose. Students should share expectations, and explore things such as meeting times, processes and procedures. If a team decides not to have any assigned roles they are required to address the topic with an explanation.

**Objective.** This activity should help students continue through the storming stage and into the norming stage of group development. It also provides another opportunity for team members to collectively reflect about the team. The activity provides instructors with a glimpse of the team's progress so that he/she may assess whether or not the team's expectations are realistic and whether or not they understand their purpose as a team.

**Evaluation.** The primary grading criteria is completeness of the assignment. The instructor can provide feedback about the viability of shared expectations and insights into the team. However, the goal here is not to judge the students' decisions. For example, if the students determine that they will not be assigning any roles to their members the instructor may comment about the potential weaknesses of that decision but the student would not lose points for this decision. The degree of continuity is also considered. For example, a team that identifies a team member as a skilled editor but assigns a different team member not identified as a skilled editor to be the team's primary editor would raise concerns. Again students do not lose points for this decision but the inconsistency is pointed out to them for consideration.

**Instructor experience and tips.** Although this meeting activity is conducted outside of class, the resulting paper reveals a great deal about what did or did not happen during the team experience. Surprisingly, students often struggle to include all of the elements requested. In particular they struggle to talk about individuals in the team and identify the overall strengths and weakness of the team collectively. Feedback to the teams often includes additional ideas for working together (e.g. establishing a regular meeting time when all team members are available). During the semester when teams are struggling, this document can be an important reference for students or instructors. Questions such as "what did you agree to in your team profile" help students recognize that they may have already identified a solution to their problem.

In a more advanced class or a class focused on teams this milestone could be used to create a formal team contract that promotes improved team dynamics, productivity and satisfaction (Hunsaker, Pavett, & Hunsaker, 2011). In this case, however, a profile was used because the class dealt with undergraduates in the context of an introductory organizational behavior topic.



### **Milestone 3 – Integrated Assignment**

The third milestone typically occurs about half way through the semester. At this point the teams will have worked together in class for numerous weeks and completed at least two assignments (milestone one and two) together. The hope is that students will have had sufficient time and experience together to reach the performance stage of group development. In addition to the first two milestones, in-class student activities or other course assignments can assist in this process.

**Activity and deliverable.** This assignment can vary greatly based on the course itself but its main goal is to require students to work together. A group presentation in the form of a 30-60 second commercial or a skit of some kind works great. For example, if students have studied problem solving they can be asked to identify a campus “problem”. They should work through solving the problem using the methods taught and then produce a 30-60 second commercial advertising the merits of their solution. Alternatively, students can be asked to create a commercial marketing the school to the public.

Picture boards have also been used for this purpose. Students as a team take pictures of things that represent a concept discussed in class (Peterson, Schaffer, & Kenworth-U'Ren, 2005). They must create a collage of these pictures and present their poster to the class. All students must be part of the presentation and be prepared to answer questions to ensure integrated participation. A key to this assignment is the requirement that the poster have a theme agreed on by the members so that the project cannot be done by one person. For example, student teams were asked to come up with a team Corporate Social Responsibility statement and then create a picture board that represented their statement.

Assignments that reinforce current course learning work best because students see how the assignment reinforces what they are learning rather than as a meaningless task. Assignments that one person can accomplish are not as effective.

**Objective.** The objective is to provide students the opportunity to work together on a low risk assignment in hopes that they will demonstrate that they are reaching the performing stage of group development. The norms they set forth in their team profile will likely be challenged; they may even experience the storming stage of group development again. The hope is that students will either experience the success of the performance stage of development or be given the opportunity presented by failure to redirect their team. Either outcome should facilitate their progress through the learning cycle.

**Evaluation.** Students are evaluated on the degree to which they execute the assignment with excellence and follow all instructions. If a portion of the assignment includes course content it should also be included in the evaluation. The key is to remember that instructors are looking for evidence that the team is reaching the performance stage. Instructors then have greater information on how the class, as a whole, and individual teams are progressing.

**Instructor experience and tips.** When crafted to encourage creativity and reinforce course learning students generally enjoy this assignment. The exception to that is when a team is still struggling to work together. The results can be a mess.

If the course requires that students already begin their final group project, this milestone can become the project outline as described in Milestone 4. Having an opportunity to complete another assignment, as discussed above, allows students to perform well on a task not related to their final project, building confidence prior to commencing the final project. If

this milestone is replaced with the team project, another milestone related to the group project can be added. Other milestones may include: practice presentations; draft of a portion of written projects; or an updated more detailed project outline. If an alternative project related milestone is used they should follow the same guidelines for evaluation discussed in Milestone 4.

#### **Milestone 4 – Project Outline**

The fourth milestone should take place early enough in the semester that students will be able incorporate the feedback provided into their final projects and complete their projects on time. Identifying the appropriate date in the semester based on the project due date and content material is an important step in the success of the milestone process. Identifying the most appropriate data for the fourth milestone can provide guidance for other milestone due dates.

**Activity.** This milestone requires students to begin work on their final group project. In this example the final project included a paper and presentation. Students brainstorm paper ideas and discuss what is required of them as a team to accomplish all of the elements. Most of this work is done outside of class.

**Deliverable.** Students are required to submit an outline of their final project and include an action plan for how they intend to accomplish the project. The format and length of the outline will vary based on the project. The action plan should include dates, names and details about elements of the project. Students are encouraged to use backward planning starting from the due date to identify key dates by which portions of the project need to be completed. Action plans should also include time to receive additional instructor feedback on the project as it is developed.

**Objective.** This milestone provides another opportunity for student teams to reevaluate their norms and evaluate the degree to which they are performing well together. It also provides the first step in the iterative learning processes between the students and the instructor related to the team's final group project supporting the milestone process objective three.

**Evaluation.** Grading is based on completeness and thoroughness of the outline such that feedback is possible and the viability of the action plan can be assessed. It is important that students be instructed up front that they will not be graded on content. That is not to say that students should not do a good job on the content. Students are encouraged to take risks that they may not have taken if content was graded at this point. One of the goals is to provide feedback about the content of the project, but content will be *graded* later in the final project.

**Instructor experience and tips.** Students tend to struggle in two areas of this milestone. First, they have a difficult time understanding that they will not be graded on content. Students need to know that the goal is for them to get detailed feedback. Therefore they should work hard on it and feel free to take risks. The second area students struggle with is providing enough detail for feedback to be possible. Students sometimes create an outline so brief that providing detailed feedback is impossible.

Class time is utilized to present teams with written feedback on the outlines. This provides an opportunity for the instructor to answer any questions the teams may have and clarify the written feedback. Students are encouraged to update their outlines and bring drafts

of their work for the instructor to review. As discussed above these additional updates and drafts may be used as alternative milestones.

### **Milestone 5 – Team Analysis**

The fifth milestone can be assigned at the end of the bi-weekly schedule or held for later in the semester once students have been working together and either making progress on elements of or completing their entire group project.

**Activity.** Students are asked to reflect again on their group dynamics. They should consider how they are performing compared to the beginning of the semester and to what extent they developed as a team. Students are encouraged to review their team profile and see to what extent they have adhered to team roles, shared expectations and so forth.

**Deliverable.** Students are asked to write a two page analysis of their team. The degree to which team development frameworks are integrated varies based on course content. Expectations in a course on teams would be far greater than those for an introductory organizational behavior course, which is the context for this paper. When this assignment is due prior to the completion of the final project students should include what is going well, what is not going well, and how they hope to improve. Attention should be given to how they plan to overcome obstacles and whether or not they need additional help from the instructor.

When the assignment is due after the final project is complete the paper should be retrospective. Students should consider what went well, what did not go well and how they worked differently at the beginning of their team formation compared with work at the end.

**Objective.** This milestone continues the practice of reflection. When completed prior to the final project due date it provides students with the opportunity to identify concerns, make adjustments and improve how their team operates. It provides the instructor with insight into where the team is at and may identify teams who are still struggling to work together. When done after the final project the milestone provides insight into the team's learning. It also allows students to realize the full group development process including the adjourning step in the process.

**Evaluation.** We expect student teams to have different experiences, some good and some not. Like the first milestone, students are not graded based on the 'success' of their team development. Students are encouraged to be honest about their unmet expectations and mistakes as well as their successes. We base grading on writing quality; the team's ability to follow instructions; reflection on what they learned about teams; and, how they would proceed differently if the team were to continue.

**Instructor experience and tips.** Although some teams have difficulty discussing team 'failures' many teams have keen observations about their experience. During the reflection time team members often see how they have developed over the semester and share insights about their learning. Many recognize that the ideals of their team profile have not been realized. This may be because the expectations were not realistic, were ignored or were not appropriate for their team. Despite these unrealized expectations students often demonstrate an in-depth understanding of their team including how the experience may help them be better team members in the future. Reading these final papers can be rewarding as an instructor as they affirm the development observed throughout the semester. Rather than ending the semester with a vague idea of student understanding and learning, instructors have a clear picture of student development.

## STUDENT RESPONSES

As noted above the milestone process as described here has been used solely in undergraduate Organizational Behavior courses, where student teams are collectively responsible for completing activities in class, the milestones as described in the above process, a final paper and a presentation. At the end of the semester after all assignments were completed students were asked rate their agreement on a number of statements. Over 85% of students surveyed responded resulting in 331 completed surveys. Students responded to statements on a five point Likert scale and the percentage of student agreement is reported below. A summary of responses is located in Table 1.

TABLE 1  
STUDENT FEEDBACK

Percentage of student agreement to the statement “Completing the milestones help ...

... me understand my team goals	72.81%
... me understand my role on the team	80.66%
... me be a better team member	73.56%
... me better understand how teams work	71.10%
... my team establish group norms	76.97%
... my team develop	81.46%
... my team work together	80.43%
... my team complete our presentation	81.87%
... my team complete our final paper	82.48%

The first objective of the milestone process is to provide instructors with insight into group activities outside of class, monitoring group development and progress towards course project learning objectives to enhance instructor feedback and guidance. Anecdotal instructor experiences interacting with student groups and content of milestone papers support the accomplishment of this learning objective. We were able to see directly from what was reported in the milestone papers what was happening in the groups. In addition, students tended to identify social loafers and other team constraints more readily when the team did not perform well on a milestone or when individuals felt that they were doing more than their fair share of the work.

The second objective for the milestone process is to facilitate student teams’ progress through the group development process and provide them with a structured process to reflect on and learn from their team experience. Student survey results above demonstrate student agreement that the milestone process helped with such things as understanding team goals (72.81%), understanding individual roles (80.66), establishing group norms (76.97), helping their team develop (81.46%), and helping their team work together (80.43%). Open ended comments supported this, as students responded that the thing they liked most about the milestones included “[bringing] teams together before the large final project so that we knew how each other worked and were used to each other already”, “team bonding”, “[helping to] establish team norms and roles” and “getting used to group interactions in college.” These

demonstrate that students found the milestones helpful in reflection and team experiential learning. Of course, not every student agreed. For example, many students least liked the repetition of the milestone process. But it is encouraging that a significant number of students brought up group development on their own as an achievement of the milestone process. Students also reported that the milestone process helped them be a better team member (73.56%) and better understand how teams work (71.10%).

The final milestone process objective is to increase of the iterative process between instructors and students related to the teams' final projects. This is clearly met by the adoption of five smaller deliverables and greater interaction between the instructor and student teams. However, aside from the mere quantity of interactions, the subject of the interactions has to do, more often, with the team development and better understanding team dynamics. Student teams reported that the milestone process helped them complete their final presentation (81.87%) and final paper (82.48%).

### **DISCUSSION/CONCLUSION**

Although this process was designed for the specific needs of an undergraduate Organizational Behavior class the process can be easily modified to meet the needs of instructors in other courses that require team work. Once instructors make decisions about the content (if modified) and timing of the milestones, the process is not overly cumbersome to administer or difficult to grade. Each deliverable has very specific expectations that are easy to assess and to assign a grade. The smaller team assignments throughout the semester help students to become actively involved with their teams early in the semester enhancing their overall experience. The repeated process also strengthens the instructor student interaction. This relationship can lead to student's willingness to seek feedback and assistance on projects that are a significant portion of the course.

Overall, the milestone process has been effective at meeting all three of the learning goals. The process provides instructors insight into the team process allowing for enhanced feedback and guidance of students. Students have a structured mechanism to help them experience the group development stages in the classroom helping them perform better on their final projects through the iterative processes that facilitated the learning cycle.

In the last milestone on group dynamics one team concluded:

"Our team has definitely changed and developed over the semester. At the beginning of the semester, we all had the same thought most college students have, oh just another group project. As we got to know each other this view quickly changed. Instead of dreading group meetings we all look forward to them. Our team has definitely gone through the stages of team development."

**Appendix I**  
**Syllabus Instructions to Students**  
Milestone Assignments

	<b>Assignment</b>	<b>Deliverable</b>
<b>1</b>	To complete this assignment you will need to visit a local museum, community or campus event as a team. Off campus activities are strongly preferred. The activity must be interactive not simply going to dinner. Use this time to get to know one another.  See the instructor if you have having difficulty finding something appropriate.	<b>2 Page Paper.</b> Briefly describe the team’s experience from planning to completion. Discuss what did and did not go well; what you learned about your team; ways you could improve; and, implication for the future of your team. Assessed based on written paper and evaluation of experience not the ‘success’ of the experience itself.
<b>2</b>	Conduct a formal team meeting. Discuss each team member’s experiences and skills. Discuss semester expectations and team purpose. Establish a team identify; team member roles and profile; shared expectations; and, identify other important strengths/weakness, concerns or roadblocks the team may face and suggest ‘corrective’ action.	<b>Team Profile.</b> Include team identity (e.g. team name, member names and skills); team members’ roles; shared expectations for group development and progress; and any other strengths/weaknesses concerns or roadblocks that concern the team and include a suggested ‘corrective action.
<b>3</b>	As a team select something about the University that you think should be “advertised” to potential students.	<b>30-60 Second Commercial.</b> This commercial will be performed live as a skit in class. All team members must actively participate.
<b>4</b>	Meet as a team and establish an outline and plan for completing the team’s semester project.	<b>3 Page Paper.</b> Include an outline of the final project with sufficient detail to receive feedback from the instructor about content and structure. Also, include an action plan for accomplishing the project which includes dates and team member assignments.
<b>5</b>	As a team discuss how your team has worked together during the semester. Consider what did and did not go well; what could you have done differently; whether or not you are individual and collectively pleased with the team’s work and grades; how your current team experience compares to your team profile; whether or not your team develop sufficiently; and what you would do differently if you were to continue as a team.	<b>2 Page Paper.</b> Write an analysis of your team. Include what went well and what did not; your assessment of the team’s development; and, how things would be different if you were to continue as a team. Assessed based on written paper and evaluation of experience not the ‘success’ of the experience itself.

**Appendix II**  
**Instructor Notes within Student Instruction**

A bi-weekly schedule of due dates provides consistency for student development and feedback works well if it is appropriate for the course. It is helpful to identify the best time in the semester for milestone 4 (the project outline) prior to scheduling due dates for the remaining milestone.

	<b>Assignment</b>	<b>Deliverable</b>
<b>1</b>	<p>To complete this assignment you will need to visit a local museum, community or campus event as a team. Off campus activities are strongly preferred. The activity must be interactive not simply going to dinner. Use this time to get to know one another.</p> <p>See the instructor if you have having difficulty finding something appropriate.</p>	<p><b>2 Page Paper.</b> Briefly describe the team’s experience from planning to completion. Discuss what did and did not go well; what you learned about your team; ways you could improve; and, implication for the future of your team. Assessed based on written paper and evaluation of experience not the ‘success’ of the experience itself.</p>
<p>Objective</p> <ul style="list-style-type: none"> <li>• Help student form as a team.</li> <li>• Help student move toward the storming stage of group development.</li> </ul> <p>Evaluation</p> <ul style="list-style-type: none"> <li>• Writing quality and ability to follow instructors set forth in the syllabus.</li> <li>• The quality of reflection on the experience and implications for the future.</li> </ul> <p>Instructor experience and tips</p> <ul style="list-style-type: none"> <li>• Students are instructed up front that they will not be graded based on the “success” of the trip.</li> <li>• It is helpful to have activities ideas on hand to assist teams that struggle to find something.</li> <li>• Student activities and experiences vary widely. Be consistent about encouraging students that they will not be graded on the ‘success’ of the activity but don’t allow that to become an excuse for not experiencing an activity.</li> <li>• In the papers students may focus too much attention on what happened and have difficulty expressing ‘next steps’ especially if the activity was ‘successful’.</li> </ul>		
<b>2</b>	<p>Conduct a formal team meeting. Discuss each team member’s experiences and skills. Discuss semester expectations and team purpose. Establish a team identify; team member roles and profile; shared expectations; and, identify other important strengths/weakness, concerns or roadblocks the team may face and suggest ‘corrective’ action.</p>	<p><b>Team Profile.</b> Include team identity (e.g. team name, member names and skills); team members’ roles; shared expectations for group development and progress; and any other strengths/weaknesses concerns or roadblocks that concern the team and include a suggested ‘corrective action.’</p>

<p><b>Objective</b></p> <ul style="list-style-type: none"> <li>• Help students continue through the storming stage and into the norming stage of group development by reflection on the team.</li> <li>• Provides instructors with a glimpse of the team’s progress so that he/she may assess whether or not the team’s expectations are realistic and whether or not they understanding their purpose as a team.</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Completeness of the assignment.</li> </ul> <p><b>Instructor experience and tips</b></p> <ul style="list-style-type: none"> <li>• During assessment instructor can provide feedback about the viability of shared expectations; the degree of continuity of the teams plans; and, insights into the team process.</li> <li>• Students often struggle to include all of the elements requested. In particular they struggle to talk about individuals in the team and identify the overall strengths and weakness of the team collectively.</li> </ul>		
<b>3</b>	<p>As a team select something about the University that you think should be “advertised” to potential students.</p>	<p><b>30-60 Second Commercial.</b> This commercial will be performed live as a skit in class. All team members must actively participate.</p>
<p><b>Objective</b></p> <ul style="list-style-type: none"> <li>• Provide students with an opportunity to work together on a low risk assignment</li> <li>• Helps students reach (or recognize if they have not reached) the performing stage of group development.</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Degree to which students executed the assignment with excellence and followed all instructions.</li> <li>• If a portion of the assignment includes course content it should also be included in the evaluation.</li> </ul> <p><b>Instructor experience and tips</b></p> <ul style="list-style-type: none"> <li>• Student teams that are not progressing through the development stages will often struggle with this assignment.</li> </ul>		
<b>4</b>	<p>Meet as a team and establish an outline and plan for completing the team’s semester project.</p>	<p><b>3 Page Paper.</b> Include an outline of the final project with sufficient detail to receive feedback from the instructor about content and structure. Also, include an action plan for accomplishing the project which includes dates and team member assignments.</p>



<p><b>Objective</b></p> <ul style="list-style-type: none"> <li>• Provides an opportunity for student teams to evaluate their norms and the degree to which they are performing well together.</li> <li>• Provides an opportunity for instructor feedback</li> <li>• Provides instructor insight into the student’s understanding and progress towards completion.</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Completeness and thoroughness of the outline such that feedback is possible</li> <li>• The viability of the action plan.</li> </ul> <p><b>Instructor experience and tips</b></p> <ul style="list-style-type: none"> <li>• Remind and encourage students that they will not be graded on content therefore they can take risks.</li> <li>• Students have a difficult time understanding that they will not be graded on content.</li> <li>• Students struggle to provide enough detail for feedback to be possible.</li> <li>• Providing face-to-face feedback on this milestone can be very helpful for instructor and students.</li> </ul>	<table border="1"> <tr> <td data-bbox="181 898 857 1287"> <p><b>5</b> As a team discuss how your team has worked together during the semester. Consider what did and did not go well; what could you have done differently; whether or not you are individual and collectively pleased with the team’s work and grades; how your current team experience compares to your team profile; whether or not your team develop sufficiently; and what you would do differently if you were to continue as a team.</p> </td> <td data-bbox="857 898 1479 1287"> <p><b>2 Page Paper.</b> Write an analysis of your team. Include what went well and what did not; your assessment of the team’s development; and, how things would be different if you were to continue as a team. Assessed based on written paper and evaluation of experience not the ‘success’ of the experience itself.</p> </td> </tr> </table>	<p><b>5</b> As a team discuss how your team has worked together during the semester. Consider what did and did not go well; what could you have done differently; whether or not you are individual and collectively pleased with the team’s work and grades; how your current team experience compares to your team profile; whether or not your team develop sufficiently; and what you would do differently if you were to continue as a team.</p>	<p><b>2 Page Paper.</b> Write an analysis of your team. Include what went well and what did not; your assessment of the team’s development; and, how things would be different if you were to continue as a team. Assessed based on written paper and evaluation of experience not the ‘success’ of the experience itself.</p>
<p><b>5</b> As a team discuss how your team has worked together during the semester. Consider what did and did not go well; what could you have done differently; whether or not you are individual and collectively pleased with the team’s work and grades; how your current team experience compares to your team profile; whether or not your team develop sufficiently; and what you would do differently if you were to continue as a team.</p>	<p><b>2 Page Paper.</b> Write an analysis of your team. Include what went well and what did not; your assessment of the team’s development; and, how things would be different if you were to continue as a team. Assessed based on written paper and evaluation of experience not the ‘success’ of the experience itself.</p>		
<p><b>Objective (when completed prior to final project)</b></p> <ul style="list-style-type: none"> <li>• Provides students with the opportunity to reflect on their progress and improve how their team operates.</li> <li>• Provides the instructor with insight into where the team is at and may identify teams who are still struggling to work together.</li> </ul> <p><b>Objective (when completed after the final project)</b></p> <ul style="list-style-type: none"> <li>• Helps students find closure to the team experience in the adjourning stage.</li> <li>• Provides an opportunity for students to reflect on and learn from their team experience.</li> <li>• Provides insight into the teams learning.</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Writing quality and ability to follow instructors set forth in the syllabus.</li> <li>• The quality of reflection and learning from the experience.</li> </ul> <p><b>Instructor experience and tips</b></p> <ul style="list-style-type: none"> <li>• These papers are often insightful about unmet expectations.</li> <li>• Students may not wish to divulge negatives.</li> </ul>			

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