Post Analysis Compression Techniques For High-end Bicycle.

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## WBS 4.5, Description of Compression Techniques

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Embry-Riddle Aeronautical University Worldwide Online Campus November 2016 "Schedule Compression techniques are used to shorten the schedule without reducing the project scope" (PMI, 2013, p181). The compression technique we chose to use is the fast tracking "technique in which activities or phases normally done in sequence are performed in parallel" (PMI, 2013, p181)

We are constructing a high-end performance bicycle and eliminating features to reduce the scope would also reduce functionality and ultimately deter some customers (Larson, Gray 2014). Reducing quality was another technique that we decided not to entertain, even though it could have potentially reduced an activity on the critical path (Larson, Gray 2014). Scheduling overtime was however, a technique we had initially considered. This would have reduced project time by only one day and required an increase in the budget. Of all the possible duration reduction techniques we attempted or considered, fast tracking proved to be superior by far.

Looking over the project we found that we had two assembly activities. One as part of the integration tasks that was preliminary for testing. The second was the actual bicycle build. By using the bicycle build as the integration assembly task and rescheduling the testing afterwards we reduced the time project by 162 hours. This in turn reduced the Project Management monitoring time and costs as well.

Fast tracking presented no negative impacts to the project. This strategy will have the technician build the bicycle for testing instead of the engineer team. The positive impact will be the overall reduction in cost and time, which allows the customer to receive the upgraded bicycle in time to mass produce the product for the holiday season. We used fast tracking to meet the customer's request so we did not have to consider crashing as another, costlier, technique. Another reason we chose to fast track was to avoid reducing our project scope.

## References

Project Management Institute (PMI), (2013). A Guide to the Project Management Body of Knowledge. (PMBOK Guide). Newton Square, Pennsylvania: Project Management Institute, Inc

Larson, E., Gray, C. (2014). Project Management. *The Managerial Process*. New York, NY: McGraw-Hill Education