Chapter 8
How Academics Exhibit their Time Management Behaviors through Various Temporal Structure Usage: Descriptive Analysis Results from a Large Survey

INTRODUCTION

Following the survey study proposed in Chapter 7, a large data set was collected from academics including faculty, staff, and students at a U.S. public research university. This chapter primarily reports descriptive data analyses, constructs independence and univariate analyses for this large survey. The survey respondents from the researched university included over seven hundred students, faculty, and staff. The survey was designed respectively for the three different groups of people, since they experienced different time requirements based upon their different roles at this academic research site. Their temporal requirements are referred to various types of temporal structures in this research. A number of comparison figures were drawn to compare the time management and different temporal structure usage behaviors among students, faculty, and staff based on the univariate data analysis results. This chapter also describes the process of normality tests, skewness and kurtosis analyses. The detailed survey questions and most data analysis tables (7-19) for students, faculty, and staff are presented in the Appendix D.

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SURVEY DESIGN AND DELIVERY DESCRIPTION

In this study, a total of 738 people responded to our survey either via an online survey or by filling in a hard copy questionnaire. The respondents included students, faculty, and staff members. The survey was advertised via personal contact and email to members of the campus. First, contact information for potential participants was gathered either through the University Provost’s office, or via colleagues. We also used the online public information listed for each academic department. Then the advertisement of this study was delivered via email to these potential participants. The incentive for answering this survey was the chance to win a state-of-the-art PDA for faculty and staff participants, or to earn three extra credits in class for student participants. The whole data collection process took about four months.

This survey collected three major aspects of information from the participants. First, demographic information was requested in the first section of the survey. Second, a set of questions asked for information on the perceived quality of individual time management. These questions covered four properties of individual time management quality including planning, meeting deadlines, sensing of a lack of time control, and engaging in procrastination behavior. High values on the first two constructs identified effective time managers, as did low values on the last two constructs. Third, as major dependent measures of temporal structures, five subsets of questions were designed to examine temporal structure knowledge, use of explicit temporal structures, understanding of implicit temporal structures, creation of temporal structures, and understanding of university-related temporal structure relationships. The detailed questions that formed these constructs will be discussed in this chapter.

Based upon empirical time management studies from the education and psychology fields, we adopted and modified some useful questions on time management measurement (see Chapter 7), and also developed new questions to measure what we thought were critical to assess the quality of individual time management. Eventually we designed four time management constructs including two positive ones – planning and meeting deadlines, and two negative ones – sensing a lack of time control and engaging in procrastination behavior. These four constructs are utilized to measure our major independent variable – the quality of individual time management. The detailed question items are listed in Chapter 7.

The key dependent variables are all concerned with temporal structures. However, we were not able to find existing validated temporal structure construct measures that could be directly adopted from the previous research. Because temporal structure research is still in a theory building stage in management science and organizational behavior fields, few empirical measures exist. Most scholars have developed their ideas to categorize different types of temporal structures from case studies in business organizations using qualitative measures. Researchers have just begun to introduce issues of temporality to the computing field. We therefore created our own temporal structure questions, in part because we needed to direct these questions to the temporal aspects of the organization for this research. Our survey was validated through iterative development on a representative subject population of 10 people from each of three types of people we measured. The subjects were asked to explain their answers and then to explain the questions. Based upon their feedback, some of the survey questions were rewritten and were iterated again until the responses matched what we expected. This iteration process took one month and half to complete. The validated five temporal structure constructs include “temporal structure knowledge,” “use of explicit temporal structures in personal calendars,” “understanding of implicit temporal structures,” “creation of temporal structures” and “understanding of university-related temporal structure relationships.” The aim of our study is to understand how much temporal structure knowledge different professionals have, and to investigate how individuals capture