

DEVELOPMENT AND VALIDATION OF THE RELATIVE
IMPORTANCE JOB KNOWLEDGE METHOD

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ABSTRACT

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by Jack Olin

Job knowledge has been identified as an important concept in predicting an individual's ability to perform the duties of a job. However, common approaches to measuring job knowledge tend to obsess over factual information (i.e., book smarts). Although certainly important, such information alone does not fully capture the necessary job knowledge needed to effectively perform a job. It is argued that an individual's decision making, or their ability to understand how the parts of the job fit together, is also critical a part of job knowledge. A method for creating job knowledge tests that assesses this critical decision making element is proposed and tested. A job analysis was conducted on a sample of 24 Resident Hall Assistants currently employed at Central Michigan University. The results of this job analysis were used to create a task-based and competency-based job knowledge test using the proposed Relative Importance Job Knowledge Method (RIJKM). Both tests were administered to 64 currently employed Resident Hall Assistants currently working at Central Michigan University. The analyses failed to provide evidence for the construct- or criterion-related validity hypotheses for either forms of the Relative Importance Job Knowledge tests. Possible reasons for these findings and future possible research areas are discussed. .

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CHAPTER I

INTRODUCTION

In the last several decades major changes have occurred that have had a radical impact on the way business is conducted. First, the emergence of the internet and rapid advancement of technology has created a global economy increasing competition in every industry. Second and particularly true in developing nations, there has been a major market shift towards offering services rather than products. Organizations that have successfully adapted to these changes have learned that it is not their products, rather their people, which give the modern organization a competitive edge. In today's global and diversified economy the productivity and financial success of the organization vitally depends on the quality of its staffing decisions.

Given such trends, understanding what individual differences help explain effective performance is more important than ever. One construct that has emerged as a critical component in understanding the performance domain is job knowledge. Job knowledge refers to an individual's understanding of the core components of the job - facts, procedures, tasks, personal requirements - and how they fit together in order to best perform the duties of the job. Generally speaking, there may not be another individual difference variable, aside from motivation, with as much potential to affect performance as job knowledge. Even for the simplest tasks, such as sweeping the floor, job knowledge can have a major impact on performance. Knowledge of the different types of brooms, what surfaces each type of broom are most suited for, the differences between sweeping wet or dry debris, and the most efficient sweeping techniques would all have a direct impact one's ability to effectively and efficiently perform the task. Several meta-

analyses have supported such intuition demonstrating that those with higher job knowledge receive higher ratings of performance and obtain greater levels of training success (Dye, Reck, & McDaniel, 1993).

Despite job knowledge's capacity, such findings may be the proverbial "tip of the iceberg." More specifically, these findings are based largely on measures of job knowledge that focus narrowly on declarative knowledge domains (e.g., facts, technical information, protocols). For example, a traditional job knowledge test for a police officer may consist of items that assess the applicant's knowledge about certain laws, regulations, or appropriate protocols. Although important information, merely knowing the technical or factual information of a job does not accurately represent *all* that is considered to be important for performance. Among other things, effective police officers also need to have highly developed knowledge of interpersonal issues, display sound decision-making strategies, and be able to quickly diagnose and interpret information in high stress situations. Measures that focus narrowly on technical domains are unlikely to assess such crucial job knowledge. Moreover, such measures are likely to be of little value for positions that rely little on technical expertise, such as management, sales, or positions creative in nature.

Furthermore, in a service-oriented market, rarely do the duties of a job occur in a vacuum. That is, in most jobs people are faced with multiple and dynamic responsibilities that force them to call on their various knowledge bases to properly adapt and perform the job. Those who know how to best respond are more likely to perform effectively. It is this broad understanding of the parts of the job and how they fit

together, not a specific facet or group of job knowledge facets, which is more likely to predict effective performance.

For example, imagine the job of a waitress on a busy Sunday afternoon. It is likely that an individual in this situation will be faced with a variety of tasks competing for their attention. What distinguishes those who are experts from novices will not necessarily relate to any specific knowledge domain, that is, knowledge of the menu, how to deal with customers, or understanding the basic job duties; all employees should be capable of these tasks. What will distinguish the expert from the novice, however, is being able to take in this information, prioritize it, and act on it in the most efficient manner. A thorough understanding of how all the parts of the job fit together and interact is a necessary component of any conceptualization of job knowledge and therefore it is critical that any job knowledge measure include such assessment.

Thus, the purpose of the present study is to develop and validate a new method for creating job knowledge tests aimed at assessing this critical component of job knowledge. This approach, named the Relative Importance Job Knowledge Method, will be different from current methods of assessing job knowledge in several ways. First, such an approach attempts to measure job knowledge without narrowly focusing on any single domain of job knowledge (e.g., declarative, procedural, etc) rather, assesses whether the applicant understands the relative importance of different components of the job. That is, the goal is to assess the applicants' knowledge of how the parts of the job fit together. Those who have a better understanding of how such parts interact would be considered to have higher levels of job knowledge, whereas those with less understanding would be considered to have lower levels of job knowledge. Similar approaches (Barrett, 1995)

have found such methods to be effective in predicting performance outcomes over more traditional assessment techniques. In addition to its theoretical benefits, such an approach requires relatively fewer steps in development, therefore reducing the cost to organizations. As Paul Muchinsky (2004, p. 176) noted “Time and money are usually far more salient organizational criteria in decision making than reliability and validity.” It is believed such a measure, not only provides a truer picture of the current individual’s job knowledge, but also will be able to do so at a lower cost to the organization.

CHAPTER II

LITERATURE REVIEW

Background

Written job knowledge tests serve a variety of purposes in industry including initial selection, job placement, and even advancement considerations. Job knowledge tests are considered to be samples of the tasks to be performed on the job. As such, job knowledge tests are developed to capture the requirements for successful job performance. When done correctly, such alignment results in job knowledge tests being very effective at predicting future performance. Meta-analysis by Dye, Reck, and McDaniel (1993) examined the predictive validity of job knowledge tests and found corrected mean validities of 0.45 for studies predicting job performance and 0.47 for studies examining training success.

These results were moderated by (1) job complexity, the higher the job complexity the stronger the relationship, and (2) content validity, the more similar the test content was to the job, the stronger the relationship. Test developers cannot control the complexity of the job for which a job knowledge test is created. However, they can influence the content validity. Traditional approaches, specifically those that focus on specific domains of job knowledge, can be said to assess only a portion of the broader job content. Therefore, such measures are likely to underestimate the true job knowledge-performance relationship. A thorough examination of the existing job knowledge research highlights these claims.

Acquiring Job Knowledge

Job knowledge, like all forms of knowledge, is something that is learned. The two most critical determinants of learning are ability and experience (Schmidt, Hunter, Outerbridge, & Goff, 1988). In this context, ability refers to cognitive ability (general mental ability), or the ability to see patterns, retain information, and distinguish important from non-important information. The second factor impacting the ability to learn is experience. Experience, or more specifically job experience, is the medium in which opportunities to learn are provided. In sum, the ability to process new information and the degree to which one is exposed to it, forms the rate at which job knowledge is accrued. Several path-analytic studies have looked at explaining this relationship in more detail and will be discussed below (Hunter, 1983; Hunter, 1986; Schmidt, Hunter, & Outerbridge, 1986).

Cognitive Ability

The importance of cognitive ability in predicting performance across jobs has overwhelmingly been supported. For jobs of medium complexity (63% of all jobs), the mean validities (corrected for criterion unreliability and range restriction) for general mental ability (GMA) predicting supervisory ratings of overall job performance was .51 and for training success .57 (Hunter and Hunter, 1984). The more complex the job, the better cognitive ability predicts performance ratings, reaching .58 and .59 respectively for the most complex jobs. However, even for the least complex jobs, the validity is still .23 (no training performance ratings were available for lowest complexity job category, Schmidt & Hunter, 2004). Moreover, this relationship remains stable overtime. For those with 12+ years experience (most experienced sample) the validity between GMA

and performance ratings was .59 compared to that of those with 0-3 experience .35 (Schmidt & Hunter, 2004).

Schmidt, Hunter, and Outerbridge (1986) hypothesized that job knowledge is the mechanism through which cognitive ability affects performance. Path analysis by Hunter (1986) supported this model showing that GMA predicts job knowledge ($r = .80$ for civilian jobs) and job knowledge predicts overall performance ratings ($r = .56$ for civilian jobs). A more recent study by Palumbo, Miller, Shalin, and Steele-Johnson (2005) demonstrated that on a student sample, job knowledge scores fully mediated the effects of cognitive ability on task performance. Although cognitive ability accounted for 12% of the variance in performance when entered as a single factor, cognitive ability accounted for only an additional 2% of the variance in performance after controlling for the effect of job knowledge. Overall, across several studies job knowledge has been acknowledged as the major mechanism through which GMA affects performance.

More specifically, GMA determines how much and how quickly a person learns job content (Hunter, 1986). The higher one's ability, the more likely they are to pick up important and job-relevant information. For example, if a relevant event takes place, the worker must recognize the events as significant. Next, the worker must be able to formulate the lesson inherent in the event in such a way as to learn from it. GMA is critical to the recognition process because the worker must link current information to the knowledge already in memory. GMA is necessary to learning from recognition because the information must be restructured to a form relevant to future recognition. Given such important functions, any learning on the job will be dependent on GMA (Hunter, 1986).

Job Experience

One of the most commonly assessed constructs in employee staffing is job experience. Data from a national survey of 3,000 employers showed the most important characteristics employers consider in hiring are attitude, communication skills, and previous work experience (Cascio & Aguinis, 2004). Despite such widespread use, the relationship between job experience and performance is not as clearly understood. Several meta-analyses have been conducted examining the relationship between job experience and performance outcomes. Hunter and Hunter (1984) found a correlation of .18 between work experience and job performance. Several years later, McDaniel, Schmidt, and Hunter (1988) reported a mean corrected correlation of .32. More recently, Quinones, Ford, and Teachout (1995) revealed a corrected correlation of .27.

Several moderators between job experience and performance have been identified. McDaniel, Schmidt, and Hunter (1988) reported that when the sample had an average of 0-3 years experience (lowest experience group), the correlation between experience and performance ratings was .49. However, as the average number of years experience increased, the relationship between experience and performance decreased. For the most experienced samples (those with 12+ years experience), the correlation dropped to .15. This study also revealed a moderating effect of the cognitive complexity of the job. In four out of five of their subsamples (those with 0-3, 3-6, 6-9, and 9-12 years experience), McDaniel and colleagues found that experience-performance correlations were *higher* for positions with lower cognitive complexity (.39) and *lower* for positions of higher complexity (.28). Lastly, Quinones, Ford, and Teachout (1995)

found that work experience has higher correlations with hard (e.g., work samples) as opposed to soft (e.g., supervisory ratings) measure of job performance (.39 vs. .24).

Path analyses by Schmidt, Hunter, and Outerbridge (1993) have examined the relationship between job experience and performance. Experience had its largest direct effect on job knowledge ($b = .57$) relative to work sample performance ($b = .18$); however experience's indirect effect through job knowledge on work sample performance was large ($b = .66$). Similarly, the direct path between experience and performance ratings was zero; however the indirect effect through job knowledge was much larger ($.54 \times .34 = .19$). Borman, Hanson, Oppler, Pulakos, and White (1993) tested a similar model (adding a path from ability to experience) on a sample of military supervisors and also found good fit. Overall, across several studies job knowledge has been acknowledged as the major mechanism through which job experience, like GMA, affects performance.

Job experience leads to increased job knowledge by providing work opportunities for knowledge acquisition. Holding ability constant, the longer one is exposed to various stimuli the more likely that one would learn from it. Experience provides the medium for learning to take place, thus people with more experience have more opportunity to learn and hence more likely to achieve higher levels of job performance. Given such important functions, any learning on the job will be dependent on experience (Hunter, 1986).

How Job Knowledge is Usually Assessed

There are two common approaches to measuring job knowledge. The first utilizes generalized off-the-shelf job knowledge tests. Generally, these tests are designed for positions with large technical or factual knowledge bases. For example, for a mechanical maintenance position there are a numerous standardized mechanical knowledge tests

available. Such tests are typically multiple-choice, can be administered either in paper-and-pencil form or via computer administration, and generally cover a specific area of information (e.g., engineering principles, laws and codes, etc).

The second approach involves the development and validation of a localized job knowledge test. The process of constructing such tests begins with an analysis of the job. In this analysis process, subject matter experts (SMEs), usually job incumbents and/or supervisors, establish the content domain to be assessed (see Muchinsky, 2004, for a detailed discussion of test development process). In the next step, SMEs need to be trained in item writing, pick an area to cover, and begin to draft an early set of items. Next, the SMEs need to get together (with the help of the consultant) and edit the initial set of items. Following the development and editing of the items, an adequately large validation sample needs to be obtained and sampled. Those items that meet pre-established criteria are included in the test.

Problems with the Current Approaches

In the previous section the major tenets of the two most common approaches to assessing job knowledge were explicated. Although both approaches offer a number of perks, on the whole, both share a number of concerns that limit their utility to the modern organization. A primary concern with regard to off-the-shelf measures relates to the fact that they are not based on the results of local job analysis and validation. Tests of generalized knowledge have lower predictive validity than tests developed on the basis of job analyses (Dye, Reck, & McDaniel, 1993). Although job knowledge tests are rarely challenged in court, any selection process that has been implemented without the use of local job analysis or validation study is certainly at more risk.

Another major issue associated with the use of off-the-shelf measures is that such measures only exist for a limited number of content domains. Typically the positions covered are those with a large declarative knowledge base such as mechanics, engineering, accounting, etc. Therefore, such measures are incapable of assessing job knowledge for a huge number of positions like those in service sectors that tend to rely on interpersonal skills, leadership, or creativity; attributes not readily assessed by such tests.

Tests developed based on job-specific development and validation also suffer from several limitations. A major issue with such approaches is shear cost. Although no unanimous procedure has been developed for conducting such processes, Muchinsky's (2004) approach outlines a common method. This approach involved several in-house visits by the consultant, a significant investment of time from the SMEs (in this case 8 mid- to high-level managers), and a chunk of incumbent's time to complete the validation study. One can imagine, the development and validation of such a test will cost tens of thousands of dollars in consultant's fees and lost worker productivity.

Despite such concerns, a more fundamental flaw with both approaches is that both are likely to narrowly focus on declarative knowledge domains. As mentioned previously, off-the-shelf measures are limited to assessing such information from which their already is a current knowledge base to test. Although such information is important for a vast number of jobs, it certainly does not accurately assess all that is job knowledge in any one job, technical or not, and certainly is inadequate for several areas in which such technical or procedural information is of little or no value. Unfortunately, such problems also plague many of the job-specific measures that are developed and validated

by high priced consultants. For example, the test developed by Muchinsky (2004) focused primarily complex electrical engineering information.

Relative Job Knowledge Method

The primary notion behind the Relative Job Knowledge Method is that to be successful in any job, one needs to know how the parts of that job fit together. When confronted with several competing tasks, which is most important to address first? What personal characteristics are most or least important to being successful on the job? Knowing such information is likely to have a large impact on the performance of the employee. Possessing the tools necessary for the job is required; understanding how to apply these tools most efficiently is something that is learned. Proper assessment of this knowledge is likely to aid in differentiating those with higher job knowledge than those with lesser amounts.

The Relative Importance Job Knowledge Method (RIJKM) concept is based on research done by Robert Sternberg and Richard Wagner (1993). In their attempt to understand the knowledge-performance relationship, Sternberg and Wagner have distinguished between practical and academic intelligence. Academic intelligence refers to knowledge of content and rules, is formal and well established, and is learned by reading and listening. Practical intelligence, on the other hand, is general knowledge about (rather than of) jobs, is informal and often tacit, and is learned via observation and participation. In their view, academic intelligence's value in understanding the knowledge-performance domain has been overstated. They feel, that practical intelligence, through its impact on a construct they call tacit knowledge, also has a meaningful role in understanding the knowledge-performance relationship. Sternberg &

Wagner (1993) support their view with a range of empirical data from both applied and research settings. Despite such support, others argued (Schmidt & Hunter, 1993) that such findings mirror closely that of existing job knowledge research. Schmidt & Hunter make a compelling case that tacit knowledge is not its own construct, rather is just a component of the broader job knowledge construct. Despite claims that tacit knowledge is a form of job knowledge, rarely is such information assessed in job knowledge tests. It is based on this broader view of job knowledge, that the Relative Importance Job Knowledge concept was conceived.

Despite its conceptual influence by Sternberg and Wagner, the Relative Importance Job Knowledge Method (RIJKM) approach was adapted from Richard Barrett's (1995) Performance Priority Survey (PPS). Barrett (1995) introduced the PPS to measure a new construct he proposed called person-environment congruence. Person-environment congruence assessed the fit between the subordinate's perceptions of the requirements of the job and the requirements of the supervisor or of the organization. Although Barrett did find support for his new construct, person-environment congruence never really caught much attention. However, Barrett's approach to creating items for the PPS provided a useful structure for which the Relative Importance Job Knowledge Method was created. The items of the PPS are created in a very simple yet effective manner.

First, a basic job analysis is conducted on the position or positions of interest. In this analysis, statements referring to activities relevant to the job are collected from SMEs. Barrett (1995) outlined several types, such as statements from job descriptions, behaviors that are relevant to the job, activities that are related to the job but are actually

not part of the job (and therefore done mistakenly), statements about personality, etc. Once a sufficiently large list is created, SMEs rate the statements on a 5-point scale ranging from least important to the job to most important to the job. Depending on the desired length of the scale, statements that make up the test are chosen based on a normal distribution of responses. That is, if the desired length of the scale is 10 items, then only 1 item rated least important will be chosen, 1 item rated most important, 2 of next most/least importance, and 4 of neither important nor not important. Applicants than are asked to sort the items into their respective categories of importance. From their responses, applicants' and supervisors' scores are correlated. Barrett showed that the PPS method correlated positively with several performance outcomes.

Barrett's (1995) approach offers the boiler-plate for which the items of the RIJKM were created. This approach was adopted for several reasons. First, Barrett's approach is based off job analysis. Tests based off local development and validations are more predictive and legally defensible than those that are not (Dye, Reck, & McDaniel, 1993). Secondly, the job analysis is relatively less time consuming and intensive than traditional approaches like that used by Muchinsky (2004). That is, SMEs don't need to be trained and create often complicated test content. In many cases, items using Barrett's approach can be adopted from job descriptions and interviews. As a result, this process should be much less time consuming and expensive. Finally, the items themselves rarely focus on specific knowledge domains such as technical or factual information, rather behaviors or personal characteristics that are important to the job. As such, these items can be said to have equal or even higher levels of content validity because they more closely relate to decisions made on the job.

Present Study

The goal of the present study is to develop and validate the Relative Importance Job Knowledge Method (RIJKM). The theoretical basis for the concept was built on research done by Sternberg and Wagner (1993) relating to tacit knowledge. Although they found criterion validity for their tacit knowledge construct, it was argued that they were actually measuring job knowledge (Schmidt & Hunter, 1993). However, no direct attempts have been made to test this claim. It is proposed then, that a measure assessing such content will predict performance outcomes similarly to previous job knowledge – performance meta-analytic results. In addition to such criterion validity, it is proposed that this conception of job knowledge will also share the same pattern of relationships with general mental ability and job experience as suggested by previous path analyses.

Hypothesis 1: Scores on the Relative Importance Job Knowledge Method will be positively related to supervisory ratings of performance.

Hypothesis 2: Respondents' reported job experience will be positively related with scores on the Relative Importance Job Knowledge test.

Hypothesis 3: Cognitive ability will be positively related with scores on the Relative Importance Job Knowledge test

The RIJKM approach offers several strengths over more traditional approaches. First, RIJKM attempts to measure job knowledge without narrowly focusing on any single domain of job knowledge. Such an approach is likely to paint a more accurate picture of the individuals' job knowledge. Furthermore, such a measure can be used to assess job knowledge on a range of jobs, not just those technical in nature. Additionally, the process of creating the RIJKM measure is built off a simple and effective method of creating tests, similar to that of Barrett's (1995) performance priority survey. This

approach is based off simple task- and competency-based job analysis. The reliance on job analysis should increase the predictive potency as well as legal defensibility of such an approach. Finally, this method requires fewer steps to develop and much less involvement via the organization, therefore reducing the cost to organizations. As a result, this approach is likely to be an attractive complement or alternative to current methods to assessing job knowledge.

CHAPTER III

METHOD

Procedure

In order to create job knowledge tests using the hypothesized Relative Importance Job Knowledge Method a job analysis had to be conducted. For a number of reasons, including convenience, likelihood of gaining access to, and utility, the position of Resident Hall Assistant was targeted for analysis. Using information provided by the U.S. Department of Labor's O*NET Online and a previously conducted job analysis, a comprehensive list of Resident Hall Assistant job duties and necessary characteristics was compiled. From this list, several graduate students knowledgeable in the area of job analysis edited the lists for content, accuracy, and clarity. The final list included 32 tasks and 24 competencies required to perform the job of Resident Hall Assistant.

From these lists task- and competency-based job analysis questionnaires were created. The task-based job questionnaire asked participants to rate, using 7-point likert scales, how important and difficult each of the 32 tasks were to performing the job of Resident Hall Assistant. Similarly, for the competency-based job questionnaire participants were asked to rate, using 7-point likert scales, how important the following 24 competencies were to performing the job of Resident Hall Assistant.

Participants recruited for this study included all full-time Resident Hall Assistants currently employed at Central Michigan University during the Spring 2010 semester. Participants were recruited via email which detailed the study and offered a \$10 gift card for participation. The primary researcher then attended the next major RA meeting and administered surveys to those interested. Extra survey packets were set aside at a

centrally located office on-campus for any participant that missed the meeting but still wanted to participate. Participants were given several weeks to complete the packets and return the main office of the psychology department. Of the 146 possible, 24 (16.4% response rate) RAs filled out and returned the job analysis questionnaires. Means for the tasks and competencies were calculated and served as the rankings used to create the Resident Hall Assistant Relative Importance Job Knowledge tests.

In order to validate the task- and competency-based Resident Hall Assistant Relative Importance Job Knowledge tests, a second sample of RAs needed to be obtained. A second email was sent via the same listserv to all RAs. Similar to the job analysis recruitment, RAs received an email that detailed the upcoming study and offered each participant a \$10 gift card to the university bookstore. Individuals were informed that in order to participate in this study they had to allow the researchers to access to their annual performance ratings.

Similarly to the job analysis data collection, packets were prepackaged and made available locally on-campus. In order to maximize participation, an online version of the validation measures was created and made available to any remaining interested RAs. This survey packet included a basic demographic form and both the task-based and competency-based job knowledge tests. The task-based job knowledge test presented participants with sets of three commonly performed Resident Hall Assistant job tasks and asked them to indicate which was most and least important to performing the job. Similarly, the competency-based job knowledge test presented participants with sets of 3 personal characteristics relevant to the job of Resident Assistant and asked participants to indicate which was the most and least important to performing the job. At the end of the

semester, supervisors of the participating RAs were emailed short performance evaluation forms which were collected several weeks later.

Participants

Participants recruited for this study included all full-time Resident Hall Assistants currently employed at Central Michigan University during the Spring 2010 semester. This sample was chosen for a number of reasons including, convenience, location, utility, and likelihood of gaining access to. For the job analysis portion of the study, 24 of a total 146 possible (16% response rate) RAs participated. For the validation portion of the study, 64 of a possible 146 (44% response rate) RAs participated. In addition, 24 of the RAs' supervisors provided performance ratings for 53 of the 64 (83% response rate) participating RAs.

Measures

Job Analysis Measures

There were two surveys administered as part of the job analysis; a task-based questionnaire (Appendix A) and a competency-based questionnaire (Appendix E). Note the competency-based questionnaire was named Personal Characteristics Survey as to avoid confusing the participants who may not be aware of the term 'competency'. The initial draft of tasks was adapted from the results of a previous job analyses conducted by the primary researcher's advisor during his graduate studies and from the O*NET listing for Residential Advisor (<http://online.onetcenter.org/link/summary/39-9041.00>). This initial list totaled approximately 60 tasks. Several of the tasks however were redundant with other tasks or needed editing. From the initial set of 60 the list was winnowed down

by the primary researcher to 32 tasks. These 32 tasks comprised the task-based job analysis questionnaire. Respondents were asked to indicate how important and how difficult each of tasks were on a 7-point likert scale, where 1 is very low and 7 is very high. Importance was defined as a function of frequency and consequence of error. A difficult task was one that is challenging or distasteful.

The competency-based survey was made in a similar fashion. The final number of competencies used was 24. Respondents rated each competency on importance, where 1 was not at all important to 7 very important. In this context, an important characteristic was one that was necessary to have at the time hire and has a large impact on performance of the job.

Relative Importance Job Knowledge Test

The Relative Importance Job Knowledge Measure was built on the results of the job analysis. The test is composed of two sections, task-based job knowledge (Appendix C) and competency-based job knowledge (Appendix G). The items in both sections were created in similar fashion. Each item contains 3 tasks or 3 competencies from the job analysis questionnaires. Participants were instructed to rank order the 3 tasks or 3 competencies based on their importance for successfully performing the job. For example, for the task-based job knowledge item participants are presented with 3 tasks of varying importance from the job analysis. Participants were asked to mark which of the 3 tasks they think is most important to successfully performing the job and which task is least important to performing the job. Respondents received points based on how accurately their ranking corresponded to the mean ratings of each of the tasks and

competencies from the job analysis. In total, there were 32 items, 20 task-based items and 12 competency-based items.

Items were classified as easy, medium, and hard in difficulty. The difficulty of items was determined by the mean differences between the 3 tasks or characteristics that comprised the item. The most difficult items had very little mean differences between the 3 tasks or competencies, whereas those of medium difficulty had 2 of the 3 tasks or competencies relatively close to each other and the 3rd task was much further from the other two. The easiest items were those in which each of the 3 tasks or competencies were relatively spread apart in terms of mean ratings. Respondents received points for how well their ranking matched that of the job analysis ratings, and as a function of how difficult the item is. Points will be totaled across both measures to calculate an overall job knowledge score. Details of the scoring procedure are detailed below.

Test Scoring

Items for both sections of the Relative Importance Job Knowledge Measure (task- and competency-based) were scored the same way. Items consisted of three statements (task or competencies) and participants were asked to identify which of the three statements they felt was most important and least important in successfully performing the duties of the job. If the test taker correctly identified the most or the least important statement they received two points. So, if an individual correctly identified the most important statement they received two points and if they also correctly identified the least important statement they received another two points. If an individual correctly identified the middle importance statement (the statement that was neither most nor least important) they received one point. If an individual correctly identified all three of the

statements in the item they would receive five points total for that item. Additionally, individuals received partial points for not reversing the correct order. So, if the correct ordering of statements was 1, 2, 3, an individual would receive one point for 3, 1, 2 or 2, 1, 3. This was done to differentiate those who reversed the order completely (and therefore theoretically have 0 job knowledge) from those who were able to avoid completely reversing the order. Composite scores for each section (task- and competency-based) were calculated by adding the scores for each item.

Demographic Questionnaire

In addition to the Relative Importance Job Knowledge Measure, several important demographic questions were asked (Appendix I). Basic information necessary for conducting the study such as name, gender, supervisor's name, what resident hall they work in, and address were gift card will be sent will be asked. In addition, several other important criteria were collected relating to job experience and cognitive ability. With regards to job experience, each participant will be asked "How many semesters have you been a Resident Assistant?" Unfortunately, as often is the case, organizational pressures to keep the assessments as short as possible made direct assessment of cognitive ability infeasible. That is, the management at Residence Life who allowed this study to take place were very concerned with the amount of time the participants spent working on these questionnaires. However, it was important to obtain some indicators of cognitive ability. As a result, participants were asked to self report their cumulative grade point averages and ACT/SAT scores.

Performance Evaluation Form

A short 3-item performance evaluation scale was drafted to assess the RAs' overall performance (Appendix J). This scale was designed to be short in length (to maximize likely participation) but also provide a sound assessment of the RAs' performance. One item assesses relative performance, one item assesses maximum performance, and one item assesses the supervisor's opportunity to observe employee performance.

CHAPTER IV

RESULTS

Demographics

Of the 146 Resident Assistants (RAs) recruited, 64 participated for a response rate of 44%. Forty-two participants reported being female (66%). Descriptive statistics for participant job experience, ACT scores, GPA, and performance items are presented in Table 1.

Table 1. *Descriptive Statistics for Job Experience, ACT Scores, GPA, and Performance Items*

	N	Mean	Standard Deviation
Job Experience (semesters)	63	3.38	1.48
ACT Composite Scores	63	24.60	3.81
Cumulative GPA	64	3.43	0.39
Relative Performance Item	53	6.89	1.90
OCB Performance Item	53	4.74	1.44

Note. ACT = American College Testing exam. Scores range from 1 to 36. National average = 23.1 for 2010. GPA = Grade Point Average. GPA was on a 4-point scale, ranging from 0.0 (i.e., receiving all failing grades) to 4.0 (i.e., straight A's). OCB = Organizational Citizenship Behavior.

Participant job experience ranged from 1 semester to 7 semesters with a mean of 3.38 semesters, or one and one half years as an RA ($SD= 1.46$ semesters). The cumulative GPA of the sample ranged from 2.52 to 3.97 (on a 4-point scale) with a mean cumulative GPA of 3.43 ($SD= 0.39$). ACT scores ranged from 18 to 34 with a mean of 24.6 ($SD= 3.48$). Overall, 24 RA Directors participated in the study, with those participating administering ratings on 1 to 5 RAs ($M= 2.3$, $SD= 1.33$).

There were two items assessing Resident Assistant performance. Performance ratings were obtained for 53 of 64 of the participating RAs (83%). The first performance

item (from here on out referred to as “relative performance”) read “How would you rate this employee’s performance *relative* to all other Resident Assistants for which you have been a director of?” The item was on a 10-point scale with scale points ranging from “One of the worst” to “One of the best.” The maximum score of the item was 10 and the minimum was 3 ($M= 6.89, SD= 1.89$). The second performance item (hereafter referred to as “OCB performance”) read “How often does this employee go above and beyond what is required of them on the job?” The item was on a 7-point frequency scale ranging from “Never” to “Very Frequently.” The maximum score of the item was 7 and the minimum was 1 ($M= 4.74, SD= 1.44$).

Item Analysis

A pilot sample was unable to be obtained prior to the final data collection. As a result, item analysis had to be done on the final data set. In its original form, the task-based job knowledge test had 20 items. Scores for the task-based job knowledge test were obtained for all 64 participants. The internal consistency of the scale was $\alpha = .186$. Items with the lowest corrected item total correlation were removed one at a time and the scale internal consistency was then reassessed. In total, 6 items were removed from the original 20 item scale. This final 14 item scale yielded an internal consistency of $\alpha = .500$. The task-based job knowledge items removed and their CITCs are presented in Table 2.

Table 2. *Task-based Job Knowledge Items Removed*

Item	Difficulty	CITC		Keyed Response	Percent indicating Keyed Response
10	Easy	-0.34	a. Talks with problematic residents about reports of misconduct and offensive behavior, emphasizing and describing consequences of resident's future actions.	2	13%
			b. Reports for at least one weekly duty night	1	9%
			c. Assists in surveys and special projects as requested by the resident hall director and/or office of student housing.	3	63%
12	Hard	-0.17	a. Discusses information on rules and regulations of RH's with residents in order to ensure a common understanding of policy.	1	39%
			b. Asks questions of resident with a problem in order to understand the causes.	2	28%
			c. Completes appropriate written documentation of interactions in a thorough manner, explaining causes, actions taken, and potential consequences.	3	50%
14	Medium	-0.1	a. Inspects rooms for inappropriate appliances and furniture.	3	64%
			b. Identifies and completes maintenance needs of Residence hall.	2	63%
			c. Participated in training in order to improve skills crucial to performing RHA duties.	1	84%

18	Medium	-0.03	a. Answers inquiries from residents about university facilities and resources.	1	38%
			b. Supervises activities to monitor adherence to residence hall policies.	2	27%
			c. Encourages residents in the planning, development, and participation of activities.	3	17%
2	Medium	-0.02	a. Answers inquiries from residents about university facilities and resources.	3	48%
			b. Confronts violations of residence hall policy	1	16%
			c. Settle disputes and conflicts between residents discussing the problems with both parties and encouraging resolution.	2	17%
15	Hard	-0.02	a. Assists in surveys and special projects as requested by the resident hall director and/or office of student housing.	2	39%
			b. Identifies damages to residence hall and informs residents of billing charges as appropriate.	1	5%
			c. Encourages residents in the planning, development, and participation of activities.	3	2%

Note. CITC = Corrected item total correlation.

The original form of the competency-based job knowledge test was composed of 12 items. Scores for the competency-based job knowledge test were obtained for all 64 participants. The internal consistency of the scale was $\alpha = .395$. Items with the lowest corrected item total correlation were removed one at a time and the scale internal consistency was then reassessed. In total, 2 items were removed from the original 12 item scale. This final 10 item scale yielded an internal consistency of $\alpha = .473$. The competency-based job knowledge items removed and their CITCs are presented in Table 3.

Table 3. *Competency-based Job Knowledge Items Removed*

Item	Difficulty	CITC		Keyed Response	Percent indicating Keyed Response
10	Easy	-0.038	a. Diagnosing complex interpersonal or group situations.	3	59%
			b. Thinking of and implementing different solutions for different problems.	2	52%
			c. Quickly making sense of, combining, and organizing information into meaningful patterns.	1	25%
12	Hard	-0.014	a. Understanding of University and Residence Hall policies.	2	59%
			b. The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem.	3	50%
			c. Maintaining a professional attitude and manner.	1	50%

Note. CITC = Corrected item total correlation.

The original form of the task-based job knowledge test consisted of 20 items and the scores ranged from 47 to 76 out of a possible 100 ($M= 63.33$, $SD= 5.76$). The original form of the competency-based job knowledge test consisted of 12 items and the scores ranged from 20 to 48 out of a possible 60 ($M= 38.7$, $SD= 5.83$). The revised form of the task-based job knowledge test consisted of 14 items and the scores ranged from 27 to 59 out of a possible 70 ($M= 47.69$, $SD= 5.83$). The revised form of the competency-based job knowledge test consisted of 10 items and the scores ranged from 14 to 44 out of 50 ($M= 33.7$, $SD= 5.56$). Hereafter, any reference to the task- and competency-based job knowledge tests will imply the revised scales unless otherwise noted.

Hypotheses

The results for the hypotheses are presented in Table 4. The first hypothesis predicted that scores on the Relative Importance Job Knowledge tests would be positively related to supervisory ratings of performance. Simple bivariate correlations (Pearson's r) were calculated to evaluate this relationship. The results did not provide support for the hypothesis that job knowledge test scores would be positively related to performance ratings. The relationship between scores on the task-based job knowledge test and the relative performance item ("How would you rate this employee's performance *relative* to all other Resident Assistants for which you have been a director of?) was near-zero and non-significant ($r = .01, p = .93$). The relationship between scores on the task-based job knowledge test and the OCB performance item ("How often does this employee go above and beyond what is required of them on the job?") was small, negative and non-significant ($r = -.10, p = .46$). The relationship between scores on the task-based job knowledge test and a composite performance score (scores of the relative performance item combined with the scores on the OCB performance item) was also small, negative and non-significant ($r = -.04, p = .78$).

The relationship between scores on the competency-based job knowledge and the relative performance item was small and non-significant ($r = .09, p = .53$). The relationship between scores on the competency-based job knowledge and the OCB performance item was small, negative and non-significant ($r = -.05, p = .71$). The relationship between scores on the competency-based job knowledge test and a composite performance score (scores of the relative performance item combined with the scores on the OCB performance item) was small and non-significant ($r = .03, p = .84$).

Table 4. *Correlations among Key Variables*

Measures	Mean	SD	1	2	3	4	5	6	7	8	9
1. Task-Based JKT	47.69	5.83	--								
2. Competency-Based JKT	33.7	5.56	.03	--							
3. Composite JKT	81.39	11.39	.73	.70	--						
4. Relative Performance	6.89	1.9	.01	.09	.07	--					
5. OCB Performance	4.74	1.44	-.10	-.05	-.11	.78	--				
6. Performance Composite	11.63	3.34	-.04	.03	-.01	.96	.93	--			
7. Grade Point Average	3.43	0.39	-.03	.09	.03	-.07	-.04	-.06	--		
8. ACT Test Score	24.6	3.81	.05	.14	.13	.15	.11	.14	.43	--	

Note. JKT = Job Knowledge Test.

The relationship between scores on the composite job knowledge test (scores on the task-based and competency-based job knowledge test combined) and the relative performance item was small and non-significant ($r = .07, p = .63$). The relationship between scores on the composite job knowledge test and the OCB performance item was negative and non-significant ($r = -.11, p = .44$). The relationship between scores on the composite job knowledge test were and a composite performance score (scores of the relative performance item combined with the scores on the OCB performance item) was small, negative and non-significant ($r = -.01, p = .95$).

The second and third hypotheses predicted that Resident Assistant's job experience and GPA/ACT scores would be positively related to Relative Importance Job Knowledge Test scores. Simple bivariate correlations (Pearson's r) were calculated to evaluate these hypotheses. Results did not provide support for any of the relationships of interest. The coefficients between Resident Assistant's self-reported job experience and scores on the task-based job knowledge test ($r = .09, p = .48$), the competency-based job knowledge test ($r = .14, p = .27$), and composite job knowledge test ($r = .16, p = .21$) were all small and non-significant. The coefficients between Resident Assistant's self-reported ACT scores and scores on the task-based job knowledge test ($r = .05, p = .70$), the competency-based job knowledge test ($r = .14, p = .27$), and composite job knowledge test ($r = .13, p = .31$) were all small and non-significant. The coefficients between Resident Assistant's self-reported GPA scores and scores on the task-based job knowledge test ($r = -.04, p = .79$), the competency-based job knowledge test ($r = .09, p = .50$), and composite job knowledge test ($r = .03, p = .79$) were all small and non-significant.

CHAPTER V

DISCUSSION

The Relative Importance Job Knowledge Method (RIJKM) was created in an attempt to provide a method for producing simple yet effective job knowledge tests. Using this method two job knowledge tests were created for the job of Resident Hall Assistant (RA). These tests presented incumbent RAs with items that were designed to replicate job related decision-making tasks. It was hypothesized that individuals with higher levels of job knowledge would be able to answer these items more accurately than those with lower job knowledge. In order to test this hypothesis the scores on the tests were used to predict Resident Assistant supervisory ratings of performance. Overall, the results of the study were disappointing with none of the 3 hypotheses receiving support. Possible reasons for these results are discussed below.

First and foremost, both the task- and competency-based job knowledge tests showed poor internal consistencies ($\alpha = .186$ and $\alpha = .395$, respectively). Although item trimming improved these values ($\alpha = .500$ and $\alpha = .473$), both values remained well below acceptable (e.g., $\alpha \geq .70$). There are several potential reasons the tests had such poor internal consistencies.

One potential reason the job knowledge tests had such poor internal consistencies is lack of variability. First, the scores for each test item could only range from 1 to 5, as opposed to other commonly used 7 or 10-point scales. The usage of a narrower range of scores may have restricted the range of possible score differentiations among the highest and lowest performers and therefore capped the variability of the item scores. Additionally, it could be argued the sample itself was relatively homogenous (similar

GPA, GRE scores, job experience, etc). Such homogeneity may also have reduced test variability contributing to a lower internal consistency (Cortina, 1993).

Another reason the job knowledge tests had poor internal consistencies is the lack of a pilot study to evaluate and edit the scales and their underlying latent structures. Certainly this is standard practice in scale development, however, early in the process the client organization made clear that the study sample was an already heavily studied population and as a result, opportunities to collect data were going to be limited. The lack of pilot was thought to be tolerable because the actual items of the task- and competency-based job knowledge tests were word-for-word items used in the job analysis and presumably highly content valid. Unfortunately, the lesson was learned that just because an item is content valid does not necessarily imply it is a “good” item.

Another possible reason the tests had poor internal consistencies could be the result of non-purposeful responding by the participants. In addition to the tests described here, the participants of this study were given several other surveys. It is possible that the participants may have sped through the approximately 150-200 items in order to get done faster. Furthermore, participants were rewarded for their effort in an attempt to ensure adequate participation. Unfortunately, this may have inadvertently attracted participants for the wrong reason (e.g., merely to get the reward). Moreover, as mentioned above, this population tends to be heavily sampled and may have been “burnt out” with regards to filling out questionnaires and tests. All these factors could have contributed to the inconsistent and unreliable performance of both the task- and competency-based job knowledge tests.

In addition to the poor internal reliabilities, both the task- and competency-based job knowledge tests failed to predict the study's primary criteria of interest, supervisory ratings of performance. Such results are even more damning than the poor internal consistencies. That is, less than desirable internal consistency would be tolerable in the event the job knowledge tests predicted supervisory performance ratings. Unfortunately scores on both the task- and competency-based job knowledge tests correlated near zero with performance ratings. There are several possible reasons this could have occurred.

The first and most obvious possibility the job knowledge tests failed to predict supervisory ratings of performance is perhaps neither the task- nor the competency-based job knowledge tests actually measured Resident Assistant job knowledge. Although that is certainly one interpretation, it is believed that is not the case. Even though the coefficients between job experience and job knowledge test scores were small and non-significant, when one corrects for unreliability in the job knowledge test scores the job experience-job knowledge coefficients bump up from $r = .09$ to $r_c = .13$ for the task-based job knowledge test and from $r = .14$ to $r_c = .20$ for the competency-based job knowledge test. Similarly, correcting for unreliability increases the coefficients relating ACT scores and scores on the task-based job knowledge test from $r = .05$ to $r_c = .07$ and for the competency-based job knowledge test from $r = .13$ to $r_c = .19$. Although these corrected coefficients themselves are not "large" they are sizeable enough to suggest that the job knowledge measures are relating meaningfully to constructs they are supposed to relate to (e.g., job experience and cognitive ability).

Another possible reason the job knowledge tests were unable to predict supervisory ratings of performance could be attributed to lack of reliability of the

measurement of Resident Assistant ratings of performance. Viswesvaran, Ones and Schmidt (1996) used meta-analytic methods to quantify the mean interrater reliability of supervisory ratings of performance at .52. Therefore, even if the job knowledge tests measured job knowledge perfectly they would only be capable of relating to supervisory ratings of performance at $r = .52$. It is likely such unreliability in performance ratings affected both the task- and competency-based job knowledge tests' ability to predict such ratings.

In addition to potentially poor reliability of ratings, it is also possible that such ratings suffered from poor validity. For example, several streams of research have demonstrated that performance ratings are often contaminated by things not related to performance (e.g., politics; see, Longenecker, Sims, and Gioia, 1987). This was of particular concern in the current study given the unique characteristics of the relationship between Resident Hall Assistant (RAs) and their directors. First, directors supervised different number of RAs. That is, some directors had considerably more employees to gauge relative to other directors. It is likely that evaluating 1 employee would be distinctly easier, and therefore presumably more accurate, than gauging 5 employees (the range of RAs directors evaluated ranged from 1 to 5 with a mean of 2). Furthermore, one could imagine it is somewhat difficult to evaluate RAs because RAs and directors did not work in close proximity and RAs provide a service rather than creating an easily observable product. Because of this, an attempt was made to gauge the supervisor's ability to rate each RA's performance by asking each director "Please rate how confident you are that your ratings are accurate." Ratings that were meaningfully lower than other scores (3 z-scores) would have been removed. However, all participating directors

indicated they had high confidence (chose either the top two choices) in their ability to accurately assess RA performance. In hindsight, such results are not surprising given one of the main job duties of directors is to assess RA performance. Indicating low confidence would reflect poorly on the director's ability to perform one of the main duties of their job. Therefore, such high confidence should be taken with a grain of salt. Furthermore, as mentioned above, previous research (Viswesvaran, et. al, 1996) has suggested that supervisors are not highly consistent in their ratings of employee performance. Taken together, it is possible that the directors' ratings contained large amounts of error and therefore no predictor, no matter how valid, would have been able to accurately predict such ratings.

Limitations

There are several limitations associated with the current study. First, the study utilized a sample of university students. University students tend to represent a narrow range of population characteristics (i.e., age, race, political views, etc) and therefore it can be difficult to generalize to the population at large. Furthermore, the specific population utilized in this study was already heavily sampled research population and may have not taken the measures with full effort and purpose. Finally, as a result of this oversampling, limited data collection opportunities were available for conducting a pilot study. Lack of a pilot study contributed to the poor functioning of both the task- and competency-based job knowledge tests.

Another limitation associated with the study relates to the position of Resident Assistant. Although it is certainly true that all jobs share a great deal of job knowledge, the argument can be made that the position of Resident Assistant can be learned relatively

quickly and easily. In other words, the range of job knowledge for the position of Resident Assistant may be significantly smaller than that of more complex jobs. In addition, this study utilized an incumbent sample which will have resulted in further restriction of range given current employees will have a greater baseline of job knowledge relative to the total population of applicants.

Future Research

Future research investigating the utility of the Relative Importance Job Knowledge Method may benefit from investigating several different populations and different jobs. For example, are the results similar when these methods are applied to full-time professional jobs? Further, future research would benefit from evaluating different response format scales than the 3-statement ranking format used here (i.e., multiple-choice, likert scales, etc). Finally, future research would benefit from evaluating the utility of this method for predicting objective, as opposed to subjective, performance outcomes. For example, do scores on the RIJKM scales predict objective outcomes different than that of subjective? Overall, there are several areas that future research can investigate to better understand the value and utility of the Relative Importance Job Knowledge Method.

CHAPTER VI

POST HOC ANALYSES

Given the poor results of the preliminary analyses of the Relative Importance Job Knowledge Method (RIJKM), additional, post hoc analyses, were conducted. Specifically, alternate scoring methods were implemented, results were reevaluated, and an alternate version of the test proposed.

To review, the preliminary scoring method relied on the importance and frequency ratings derived from a job analysis conducted on a sample of 24 currently employed Resident Assistants (RAs). The average rating for each task/competency was then calculated and put in order from most important to least important. Items on the RIJKM task-based and competency-based tests composed of various combinations of highly and not so highly rated important tasks/competencies. Individuals in the validation sample earned points for accurately ranking the tasks/competencies comprising each item relative to the rankings from the job analytic sample. Unfortunately, reliance on such a small sample ($n = 24$) that composed the job analysis sample may have lead to unreliable and/or inaccurate rankings of the components of the performance domain. As a result, the original key for the test may have had substantial errors.

In an attempt to improve the reliability, and therefore validity of the proposed measure, the 9 worst performing task-based items (defined as items with negative or zero, after rounding, corrected-item total correlations) and 5 of the worst performing competency-based items were removed from their original scales and re-keyed to their remaining scale items (11 remaining for the task-based and 7 for the competency-based). To clarify, the new answer key for the bad items were determined by the score

participants received on the remaining good items. So, if those who chose task A of item 1 as most important achieved the highest score on the remaining items than task A of item 1 would now be keyed as most important.

Unfortunately, the results for the alternative scoring approach remained largely consistent with the original scoring results (Table 5).

Table 5. *Correlations among Key Variables for Alternative Scoring Approach*

Measures	1	2	3	4	5	6	7	8
1. Task-Based JKT ¹	--							
2. Competency-Based JKT ²	-.12	--						
3. Relative Performance	-.13	.12	--					
4. OCB Performance	-.19	.07	.78**	--				
5. Performance Composite	-.16	.11	.96**	.93**	--			
6. Grade Point Average	-.02	.26*	-.07	-.04	-.06	--		
7. ACT Test Score	.06	.16	.15	.11	.14	.43**	--	
8. Job Experience (semesters)	.01	.16	.06	.02	.04	-.08	-.19	--

Note. JKT = job knowledge test.

* = $p < .05$

** = $p < .01$

That is, similar to the original scoring results, evidence did not support the reliability (α ranged from .471 to a .630) or validity (r of task-based and competency-based measures with performance composite was -.16 and .11, *ns*) of the RIJKM, based on the alternate scoring method. Furthermore, the task-based measure had low near-zero or negative relationships with important job knowledge components, namely cognitive ability, as measured by ACT scores ($r = .06$) and grade point average ($r = -.02$), and job experience, as measured by semesters on the job ($r = .01$). The results for the competency-based test were more encouraging, relating positively with ACT scores ($r = .16$, *ns*), GPA ($r = .26$, $p < .05$), and job experience ($r = .16$, *ns*). Although it is somewhat puzzling there is mixed results, overall, the findings failed to support the hypothesized

relationships in all but a single case, suggesting the measures are not measuring job knowledge.

Given the failure to produce a reliable and accurate test based on the job analytic sample, it was decided to test a criterion-keying approach, one that relies on the supervisors' ratings, to score the test. By criterion-keying, the correct answer would be the choice that individuals with the highest supervisory performance rating, on average, chose. So in that way, your letting the outcome determine which answer is most and least correct. Additionally, criterion-keying allows one to determine the upper-bound of a test's ability to predict a given outcome, and therefore, gauge the test's utility for future evaluation.

The results of the criterion-keying approach are in Table 6.

Table 6. *Correlations among Key Variables for Criterion-keying Approach*

Measures	1	2	3	4	5	6	7	8	9
1. Task-Based JKT ¹	--								
2. Competency-Based JKT ²	.39**	--							
3. Composite JKT	.91**	.74**	--						
4. Relative Performance	.62**	.48**	.10	--					
5. OCB Performance	.60**	.41**	-.01	.78	--				
6. Performance Composite	.65**	.47**	.05	.96	.93	--			
7. Grade Point Average	.13	.15	-.01	-.07	-.04	-.06	--		
8. ACT Test Score	.26*	.17	-.01	.15	.11	.14	.43	--	
9. Job Experience (semesters)	-.00	.11	-.08	.06	.02	.04	-.08	-.19	--

Note. JKT = job knowledge test.

¹ After item trimming the scale composed of 15 items and had a $\alpha = .620$.

² After item trimming the scale composed of 7 items and had a $\alpha = .633$.

* = $p < .05$

** = $p < .01$

After item trimming, 15 task-based items remained ($\alpha = .633$) and 7 competency-based items ($\alpha = .620$). Although these internal consistencies are low, it is somewhat

expected given the previously noted subjective and generally unreliable nature of supervisor performance ratings (Viswesvaran, Ones & Schmidt, 1996). Job knowledge test scores were strongly and significantly related to performance ratings (r of .65 for task-based job knowledge test and performance composite and .47 for competency-based job knowledge test and performance composite, $p < .01$). This finding was anticipated given the tests were keyed to performance ratings.

More importantly, however, was the task-based and competency-based job knowledge tests relationships with the components of job knowledge. As it relates to cognitive ability, the task-based test had a moderate yet significant relationship with ACT scores ($r = .26$, $p < .05$) while the competency-based test had a small to moderate relationship with ACT scores ($r = .17$, ns). Furthermore, grade point average shared small to moderate relationships with both the task-based test ($r = .13$, ns) and the competency-based test ($r = .15$, ns). These findings provide some evidence that the RIJKM, when scored using input from supervisors, relates to cognitive ability, an important component of job knowledge.

Results were a little more mixed as it relates to job experience, another important component of job knowledge. Job experience, as measured by semesters on the job, shared a near-zero negative relationship with the task-based test ($r = -.00$, ns), however, results were more positive for the competency-based test ($r = .11$, ns). Taken together, the results of the criterion-keying approach suggest that the RIJKM can reliably and accurately measure job knowledge, however, it is important to include input from the supervisors in the process.

In order to get a better understanding of where incumbents and supervisors differed, the items (and their relative importance rankings) from the original job knowledge tests and the criterion-keyed tests were compared. First off, as it relates to the task-based test, there were 10 (out of 20) cases in which an item was included on one version and not the other. This would suggest there was considerable disagreement on what was considered a good measure of RA job knowledge and what was not. Furthermore, when evaluating the differences in rankings, there is significant disagreement, with only 4 out of the 20 items having the exact same rankings. Although there does not appear to be any discernable pattern in what tasks were or were not considered important, in general, there appears to be very little consensus. Taken together, this suggests that incumbents and supervisors had considerably different views on what is and what is not important.

Comparing the versions of the competency-based test, there were 5 (out of 12) cases in which an item was included on one version and not the other. Similarly to the task-based tests, this represents a significant difference in test content. Additionally, when evaluating the differences in rankings, only 2 out of the 12 items had the exact same rankings. Again, this suggests very little agreement in terms of relative importance of personal characteristics that represent successful RAs. Overall, these findings indicate that incumbents and supervisors had considerably different views on what is and what is not important.

Taken together, the results of the post hoc analyses suggest that the RIJKM has potential, however, any future usage of the RIJKM should be sure to include supervisor

input in the development of the scoring key and not merely as a source of criteria (i.e., performance ratings).

APPENDICES

APPENDIX A

TASK-BASED JOB ANALYSIS QUESTIONNAIRE

Instructions. Please evaluate how important and how difficult the following tasks are to performing the job of Resident Hall Assistant at CMU. *First, please read through the entire list of tasks below.* After reading them all, go back and rate each on importance and difficulty. An important task is one that is done frequently *and* where there is a large consequence of error if not done correctly. A difficult task is one that you find challenging or distasteful to perform.

Use the following guide to help you determine a task's importance:

- **Low Importance:** If a task is not done very often and if there is little consequence of error if not done correctly.
- **Average Importance:** If the given task is not done very often but there is a high consequence of error if not done correctly, or if the task is done often but there is a low consequence of error.
- **High Importance:** If a task is done often and there is a high consequence of error if not done correctly.

Use the following scale to make your importance ratings:

1	2	3	4	5	6	7
Not at all Important		Below Average Importance		Above Average Importance		Very Important

Use the following scale to make your difficulty ratings:

1	2	3	4	5	6	7
Not at all Difficult		Below Average Difficulty		Above Average Difficulty		Very Difficult

	Importance	Difficulty
1. Answers inquiries from residents about university facilities and resources.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
2. Provides advice and guidance to residents regarding personal and academic problems.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
3. Asks questions of resident with a problem in order to understand the causes.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
4. Talks with problematic residents about reports of misconduct and offensive behavior, emphasizing and describing consequences of resident's future actions.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
5. Helps to calm emotionally upset residents.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
6. Settle disputes and conflicts between residents discussing the problems with both parties and encouraging resolution.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
7. Completes appropriate written documentation of interactions in a thorough manner, explaining causes, actions taken, and potential consequences.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
8. Designs educational and social activities for residents.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
9. Supervises activities to monitor adherence to residence hall policies.	1 2 3 4 5 6 7	1 2 3 4 5 6 7
10. Encourages residents in the planning, development, and participation of activities.	1 2 3 4 5 6 7	1 2 3 4 5 6 7

- | | | |
|---|---------------|---------------|
| 11. Communicates information about programs and activities to residents via hall meetings and postings. | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 |
| 12. Plans and allocates resources for activities, such as getting refreshments. | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 |
| 13. Reports for at least one weekly duty night | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 |
| 14. Makes hourly rounds while on duty by patrolling, monitoring, and securing RH floors after hours. | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 |
| 15. Completes paperwork as needed. | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 |
| 16. Attends and is active in weekly staff meetings in order to discuss problem situations and stay informed of policy changes. | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 |
| 17. Participated in training in order to improve skills crucial to performing RHA duties. | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 |
| 18. Identifies and completes maintenance needs of Residence hall. | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 |
| 19. Explains procedures to residents for emergency situations (e.g. fire or tornado), reminding them of appropriate procedures prior to and during emergencies. | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 |
| 20. Advises and counsels other RH assistants who are having problems with job adjustment. | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 |
| 21. Maintains effective working relationship with the RHD and other RHA's. | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 |
| 22. Inventories RH supplies and property to identify breakage and theft. | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 |
| 23. Lets residents into their room who have been locked out at off hours. | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 |
| 24. Assists in surveys and special projects as requested by the resident hall director and/or office of student housing. | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 |
| 25. Confronts violations of residence hall policy | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 |
| 26. Discusses information on rules and regulations of RH's with residents in order to ensure a common understanding of policy. | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 |
| 27. Enforces quiet hour's policy by explaining reason for policy and the consequences of continued disruption. | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 |
| 28. Confiscates and reports alcohol that is in violation of RH policies. | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 |
| 29. Approaches people who may not belong in hall after visitation hours in order to determine residency and asks them to leave. | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 |

- | | | |
|---|---------------|---------------|
| 30. Prepares incident reports by providing written documentation of the circumstance preceding incident and the action taken. | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 |
| 31. Inspects rooms for inappropriate appliances and furniture. | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 |
| 32. Identifies damages to residence hall and informs residents of billing charges as appropriate. | 1 2 3 4 5 6 7 | 1 2 3 4 5 6 7 |

APPENDIX B

JOB ANALYSIS MEAN TASK RATINGS

Task	Mean
1. Confronts violations of residence hall policy	6.25
2. Confiscates and reports alcohol that is in violation of RH policies.	6.17
3. Provides advice and guidance to residents regarding personal and academic problems.	6.00
4. Makes hourly rounds while on duty by patrolling, monitoring, and securing RH floors after hours.	5.92
5. Maintains effective working relationship with the RHD and other RHA's.	5.88
6. Prepares incident reports by providing written documentation of the circumstance preceding incident and the action taken.	5.83
7. Reports for at least one weekly duty night	5.83
8. Attends and is active in weekly staff meetings in order to discuss problem situations and stay informed of policy changes	5.79
9. Approaches people who may not belong in hall after visitation hours in order to determine residency and asks them to leave.	5.71
10. Settle disputes and conflicts between residents discussing the problems with both parties and encouraging resolution.	5.71
11. Discusses information on rules and regulations of RH's with residents in order to ensure a common understanding of policy.	5.67
12. Helps to calm emotionally upset residents.	5.67
13. Explains procedures to residents for emergency situations (e.g. fire or tornado), reminding them of appropriate procedures prior to and during emergencies.	5.63
14. Participated in training in order to improve skills crucial to performing RHA duties.	5.58
15. Asks questions of resident with a problem in order to understand the causes.	5.54
16. Completes paperwork as needed.	5.25
17. Completes appropriate written documentation of interactions in a thorough manner, explaining causes, actions taken, and potential consequences.	5.17
18. Talks with problematic residents about reports of misconduct and offensive behavior, emphasizing and describing consequences of resident's future actions.	5.17

19. Answers inquiries from residents about university facilities and resources.	5.13
20. Advises and counsels other RH assistants who are having problems with job adjustment.	5.08
21. Designs educational and social activities for residents.	5.00
22. Enforces quiet hour's policy by explaining reason for policy and the consequences of continued disruption.	4.92
23. Identifies damages to residence hall and informs residents of billing charges as appropriate.	4.42
24. Communicates information about programs and activities to residents via hall meetings and postings.	4.25
25. Supervises activities to monitor adherence to residence hall policies.	4.21
26. Plans and allocates resources for activities, such as getting refreshments.	4.13
27. Assists in surveys and special projects as requested by the resident hall director and/or office of student housing.	4.13
28. Identifies and completes maintenance needs of Residence hall.	4.08
29. Lets residents into their room who have been locked out at off hours.	4.08
30. Encourages residents in the planning, development, and participation of activities.	3.92
31. Inspects rooms for inappropriate appliances and furniture.	3.75
32. Inventories RH supplies and property to identify breakage and theft.	3.46

Note. n = 24.

APPENDIX C

TASK-BASED JOB KNOWLEDGE TEST

Instructions. Listed below are items that contain tasks that have been determined to be important in successfully performing the job of Resident Hall Assistant. For each item, please indicate which of the 3 tasks you think is most important to successfully performing the job and which task you think is least important to successfully performing the job. Please mark the most important task with a “+” and the least important task with a “-”. Each item, for example Item 1, should have a single “+” and a single “-”.

1. Indicate which task is most important “+” and which is least important “-”

- a. Completes appropriate written documentation of interactions in a thorough manner, explaining causes, actions taken, and potential consequences. _____
- b. Confiscates and reports alcohol that is in violation of RH policies. _____
- c. Identifies and completes maintenance needs of Residence hall _____

2. Indicate which task is most important “+” and which is least important “-”

- a. Answers inquiries from residents about university facilities and resources. _____
- b. Confronts violations of residence hall policy _____
- c. Settle disputes and conflicts between residents discussing the problems with both parties and encouraging resolution. _____

3. Indicate which task is most important “+” and which is least important “-”

- a. Asks questions of resident with a problem in order to understand the causes. _____
- b. Settle disputes and conflicts between residents discussing the problems with both parties and encouraging resolution. _____
- c. Makes hourly rounds while on duty by patrolling, monitoring, and securing RH floors after hours. _____

4. Indicate which task is most important “+” and which is least important “-”

- a. Answers inquiries from residents about university facilities and resources. _____
- b. Inspects rooms for inappropriate appliances and furniture. _____
- c. Makes hourly rounds while on duty by patrolling, monitoring, and securing RH floors after hours. _____

5. Indicate which task is most important “ + “ and which is least important “ – “

- a. Explains procedures to residents for emergency situations (e.g. fire or tornado), reminding them of appropriate procedures prior to and during emergencies. _____
- b. Identifies damages to residence hall and informs residents of billing charges as appropriate. _____
- c. Identifies and completes maintenance needs of Residence hall. _____

6. Indicate which task is most important “ + “ and which is least important “ – “

- a. Identifies damages to residence hall and informs residents of billing charges as appropriate. _____
- b. Enforces quiet hour’s policy by explaining reason for policy and the consequences of continued disruption. _____
- c. Completes appropriate written documentation of interactions in a thorough manner, explaining causes, actions taken, and potential consequences. _____

7. Indicate which task is most important “ + “ and which is least important “ – “

- a. Designs educational and social activities for residents. _____
- b. Lets residents into their room who have been locked out at off hours. _____
- c. Provides advice and guidance to residents regarding personal and academic problems. _____

8. Indicate which task is most important “ + “ and which is least important “ – “

- a. Inspects rooms for inappropriate appliances and furniture. _____
- b. Completes paperwork as needed. _____
- c. Enforces quiet hour’s policy by explaining reason for policy and the consequences of continued disruption. _____

9. Indicate which task is most important “ + “ and which is least important “ – “

- a. Communicates information about programs and activities to residents via hall meetings and postings. _____
- b. Inspects rooms for inappropriate appliances and furniture. _____
- c. Lets residents into their room who have been locked out at off hours. _____

10. Indicate which task is most important “ + “ and which is least important “ – “

- a. Talks with problematic residents about reports of misconduct and offensive behavior, emphasizing and describing consequences of resident’s future actions. _____
- b. Reports for at least one weekly duty night _____
- c. Assists in surveys and special projects as requested by the resident hall director and/or office of student housing. _____

11. Indicate which task is most important “ + “ and which is least important “ – “

- a. Plans and allocates resources for activities, such as getting refreshments. _____
- b. Approaches people who may not belong in hall after visitation hours in order to determine residency and asks them to leave. _____
- c. Asks questions of resident with a problem in order to understand the causes. _____

12. Indicate which task is most important “ + “ and which is least important “ – “

- a. Discusses information on rules and regulations of RH’s with residents in order to ensure a common understanding of policy. _____
- b. Asks questions of resident with a problem in order to understand the causes. _____
- c. Completes appropriate written documentation of interactions in a thorough manner, explaining causes, actions taken, and potential consequences. _____

13. Indicate which task is most important “ + “ and which is least important “ – “

- a. Confronts violations of residence hall policy _____
- b. Inventories RH supplies and property to identify breakage and theft. _____
- c. Enforces quiet hour’s policy by explaining reason for policy and the consequences of continued disruption. _____

14. Indicate which task is most important “ + “ and which is least important “ – “

- a. Inspects rooms for inappropriate appliances and furniture. _____
- b. Identifies and completes maintenance needs of Residence hall. _____
- c. Participated in training in order to improve skills crucial to performing RHA duties. _____

15. Indicate which task is most important “ + “ and which is least important “ – “

- a. Assists in surveys and special projects as requested by the resident hall director and/or office of student housing. _____
- b. Identifies damages to residence hall and informs residents of billing charges as appropriate. _____
- c. Encourages residents in the planning, development, and participation of activities. _____

16. Indicate which task is most important “ + “ and which is least important “ – “

- a. Provides advice and guidance to residents regarding personal and academic problems. _____
- b. Assists in surveys and special projects as requested by the resident hall director and/or office of student housing. _____
- c. Designs educational and social activities for residents. _____

17. Indicate which task is most important “ + “ and which is least important “ – “

- a. Encourages residents in the planning, development, and participation of activities. _____
- b. Helps to calm emotionally upset residents. _____
- c. Communicates information about programs and activities to residents via hall meetings and postings. _____

18. Indicate which task is most important “ + “ and which is least important “ – “

- a. Answers inquiries from residents about university facilities and resources. _____
- b. Supervises activities to monitor adherence to residence hall policies. _____
- c. Encourages residents in the planning, development, and participation of activities. _____

19. Indicate which task is most important “ + “ and which is least important “ – “

- a. Discusses information on rules and regulations of RH's with residents in order to ensure a common understanding of policy. _____
- b. Provides advice and guidance to residents regarding personal and academic problems. _____
- c. Prepares incident reports by providing written documentation of the circumstance preceding incident and the action taken. _____

20. Indicate which task is most important “ + “ and which is least important “ – “

a. Attends and is active in weekly staff meetings in order to discuss problem situations and stay informed of policy changes _____

b. Completes paperwork as needed. _____

c. Explains procedures to residents for emergency situations (e.g. fire or tornado), reminding them of appropriate procedures prior to and during emergencies. _____

APPENDIX D

TASK-BASED JOB KNOWLEDGE TEST RESPONSE KEY

Table D1. *Task-based Job Knowledge Test Items and Keyed Responses*

Item	Difficulty		Keyed Response
1	Easy	a. Completes appropriate written documentation of interactions in a thorough manner, explaining causes, actions taken, and potential consequences.	2
		b. Confiscates and reports alcohol that is in violation of RH policies.	1
		c. Identifies and completes maintenance needs of Residence hall	3
2	Medium	a. Answers inquiries from residents about university facilities and resources.	3
		b. Confronts violations of residence hall policy	1
		c. Settle disputes and conflicts between residents discussing the problems with both parties and encouraging resolution.	2
3	Hard	a. Asks questions of resident with a problem in order to understand the causes.	3
		b. Settle disputes and conflicts between residents discussing the problems with both parties and encouraging resolution.	2
		c. Makes hourly rounds while on duty by patrolling, monitoring, and securing RH floors after hours.	1
4	Easy	a. Answers inquiries from residents about university facilities and resources.	2
		b. Inspects rooms for inappropriate appliances and furniture.	3
		c. Makes hourly rounds while on duty by patrolling, monitoring, and securing RH floors after hours.	1
5	Medium	a. Explains procedures to residents for emergency situations (e.g. fire or tornado), reminding them of appropriate procedures prior to and during emergencies.	1
		b. Identifies damages to residence hall and informs residents of billing charges as appropriate.	2
		c. Identifies and completes maintenance needs of Residence hall.	3

6	Hard	a. Identifies damages to residence hall and informs residents of billing charges as appropriate.	3
		b. Enforces quiet hour's policy by explaining reason for policy and the consequences of continued disruption.	2
		c. Completes appropriate written documentation of interactions in a thorough manner, explaining causes, actions taken, and potential consequences.	1
7	Easy	a. Designs educational and social activities for residents.	2
		b. Lets residents into their room who have been locked out at off hours.	3
		c. Provides advice and guidance to residents regarding personal and academic problems.	1
8	Medium	a. Inspects rooms for inappropriate appliances and furniture.	3
		b. Completes paperwork as needed.	1
		c. Enforces quiet hour's policy by explaining reason for policy and the consequences of continued disruption.	2
9	Hard	a. Communicates information about programs and activities to residents via hall meetings and postings.	1
		b. Inspects rooms for inappropriate appliances and furniture.	3
		c. Lets residents into their room who have been locked out at off hours.	2
10	Easy	a. Talks with problematic residents about reports of misconduct and offensive behavior, emphasizing and describing consequences of resident's future actions.	2
		b. Reports for at least one weekly duty night	1
		c. Assists in surveys and special projects as requested by the resident hall director and/or office of student housing.	3
11	Medium	a. Plans and allocates resources for activities, such as getting refreshments.	3
		b. Approaches people who may not belong in hall after visitation hours in order to determine residency and asks them to leave.	1
		c. Asks questions of resident with a problem in order to understand the causes.	2

12	Hard	a. Discusses information on rules and regulations of RH's with residents in order to ensure a common understanding of policy.	1
		b. Asks questions of resident with a problem in order to understand the causes.	2
		c. Completes appropriate written documentation of interactions in a thorough manner, explaining causes, actions taken, and potential consequences.	3
13	Easy	a. Confronts violations of residence hall policy	1
		b. Inventories RH supplies and property to identify breakage and theft.	3
		c. Enforces quiet hour's policy by explaining reason for policy and the consequences of continued disruption.	2
14	Medium	a. Inspects rooms for inappropriate appliances and furniture.	3
		b. Identifies and completes maintenance needs of Residence hall.	2
		c. Participated in training in order to improve skills crucial to performing RHA duties.	1
15	Hard	a. Assists in surveys and special projects as requested by the resident hall director and/or office of student housing.	2
		b. Identifies damages to residence hall and informs residents of billing charges as appropriate.	1
		c. Encourages residents in the planning, development, and participation of activities.	3
16	Easy	a. Provides advice and guidance to residents regarding personal and academic problems.	1
		b. Assists in surveys and special projects as requested by the resident hall director and/or office of student housing.	3
		c. Designs educational and social activities for residents.	2
17	Medium	a. Encourages residents in the planning, development, and participation of activities.	3
		b. Helps to calm emotionally upset residents.	1
		c. Communicates information about programs and activities to residents via hall meetings and postings.	2
18	Medium	a. Answers inquiries from residents about university facilities and resources.	1
		b. Supervises activities to monitor adherence to residence hall policies.	2
		c. Encourages residents in the planning, development, and participation of activities.	3

19	Hard	a. Discusses information on rules and regulations of RH's with residents in order to ensure a common understanding of policy.	3
		b. Provides advice and guidance to residents regarding personal and academic problems.	1
		c. Prepares incident reports by providing written documentation of the circumstance preceding incident and the action taken.	2
20	Hard	a. Attends and is active in weekly staff meetings in order to discuss problem situations and stay informed of policy changes	1
		b. Completes paperwork as needed.	3
		c. Explains procedures to residents for emergency situations (e.g. fire or tornado), reminding them of appropriate procedures prior to and during emergencies.	2

Note. Keyed responses were determined from job analysis ratings. 1= most important, 2= neither most nor least important, and 3= least important.

APPENDIX E

COMPETENCY-BASED JOB ANALYSIS QUESTIONNAIRE

Instructions. Please evaluate how important the following personal characteristics are to performing the job of Resident Hall Assistant at CMU.

First, please read through the entire list of characteristics. After reading them all, go back and rate each on how important they are. In this context, an important characteristic is one that is necessary to have at the time hire *and* has a large impact on performance of the job.

Use the following as a guide:

- **Low Importance:** If a given statement is both not necessary to have at the start of the job *and* has a low impact on how successful one would be at a performing the job.
- **Average Importance:** If a given statement is not necessary to have at the start of the job, but is important to develop eventually or if the statement is necessary to have at the start of the job, but relatively has a small impact on the actual performance of the job.
- **High Importance:** If a given statement is both necessary to have at the start of the job *and* has a large impact on how successful one would be at a performing the job.

Use the following scale to help you make your ratings:

1	2	3	4	5	6	7
Not at all Important		Below Average Importance		Above Average Importance		Very Important

- | | |
|--|---------------|
| 1. Understanding of University and Residence Hall policies. | 1 2 3 4 5 6 7 |
| 2. Thinking of and implementing different solutions for different problems. | 1 2 3 4 5 6 7 |
| 3. The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem. | 1 2 3 4 5 6 7 |
| 4. Recognizing when something is wrong or is likely to go wrong. | 1 2 3 4 5 6 7 |
| 5. Quickly making sense of, combining, and organizing information into meaningful patterns. | 1 2 3 4 5 6 7 |
| 6. Effectively exercising power and authority. | 1 2 3 4 5 6 7 |
| 7. Persuading others to change their minds or behavior. | 1 2 3 4 5 6 7 |
| 8. Managing one's own time and the time of others. | 1 2 3 4 5 6 7 |
| 9. Maintaining a professional attitude and manner. | 1 2 3 4 5 6 7 |
| 10. Listening to others in an understanding way. | 1 2 3 4 5 6 7 |
| 11. Knowledge of the geographic outlay of campus and Isabella County, for example, street names, parks, public libraries, hospital, etc. | 1 2 3 4 5 6 7 |
| 12. Knowledge and understanding of the operation of the University and its resources and services. | 1 2 3 4 5 6 7 |
| 13. Effectively exercising power and authority. | 1 2 3 4 5 6 7 |
| 14. Diagnosing complex interpersonal or group situations. | 1 2 3 4 5 6 7 |

- | | | | | | | | |
|--|---|---|---|---|---|---|---|
| 15. Creating a climate of growth and development. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 16. Considering the relative costs and benefits of potential actions to choose the most appropriate one. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 17. Communicating effectively in writing. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 18. Bringing others together and trying to reconcile differences. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 19. Being open to new experiences. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 20. Being aware of others' reactions and understanding why they react as they do. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 21. Adjusting actions in relation to others' actions. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 22. Adapting to new and unexpected situations as they arise. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 23. Actively looking for ways to help people. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 24. Ability to verbally communicate my thoughts, ideas, and emotions clearly. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 25. Ability to confront and work through problem situations | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

APPENDIX F

JOB ANALYSIS MEAN COMPETENCY RATINGS

Competency	Mean
1. Listening to others in an understanding way.	6.42
2. Managing one's own time and the time of others.	6.17
3. Ability to confront and work through problem situations.	6.00
4. Being open to new experiences.	5.96
5. Actively looking for ways to help people.	5.92
6. Adapting to new and unexpected situations as they arise.	5.92
7. Creating a climate of growth and development.	5.92
8. Bringing others together and trying to reconcile differences.	5.79
9. Maintaining a professional attitude and manner.	5.79
10. Ability to verbally communicate my thoughts, ideas, and emotions clearly.	5.75
11. Being aware of others' reactions and understanding why they react as they do.	5.71
12. Recognizing when something is wrong or is likely to go wrong.	5.54
13. Understanding of University and Residence Hall policies.	5.50
14. Considering the relative costs and benefits of potential actions to choose the most appropriate one.	5.42
15. The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem.	5.29
16. Knowledge and understanding of the operation of the University and its resources and services.	5.21
17. Adjusting actions in relation to others' actions.	5.21
18. Thinking of and implementing different solutions for different problems.	5.13
19. Effectively exercising power and authority.	5.08
20. Pursuing a course of action even if it makes me uncomfortable.	5.04
21. Diagnosing complex interpersonal or group situations.	4.96
22. Quickly making sense of, combining, and organizing information into meaningful patterns.	4.75
23. Communicating effectively in writing.	4.33
24. Knowledge of the geographic outlay of campus and Isabella County, for example, street names, parks, public libraries, hospital, etc.	4.29
25. Persuading others to change their minds or behavior.	4.29

Note. n = 24

APPENDIX G

COMPETENCY-BASED JOB KNOWLEDGE TEST

Instructions. Listed below are items that contain competencies (knowledge, skills, abilities, or other characteristics) that have been determined to be important in successfully performing the job of Resident Hall Assistant. For each item, please indicate which of the 3 competencies you think is most important to successfully performing the job and which competency you think is least important to successfully performing the job. Please mark the most important competency with a “+” and the least important competency with a “-”. Each item, for example Item 1, should have a single “+” and a single “-”.

1. Indicate which competency is most important “+” and which is least important “-”

- a. Communicating effectively in writing. _____
- b. Listening to others in an understanding way. _____
- c. Being aware of others' reactions and understanding why they react as they do. _____

2. Indicate which competency is most important “+” and which is least important “-”

- a. Recognizing when something is wrong or is likely to go wrong. _____
- b. Being open to new experiences. _____
- c. Effectively exercising power and authority. _____

3. Indicate which competency is most important “+” and which is least important “-”

- a. Being open to new experiences. _____
- b. Understanding of University and Residence Hall policies. _____
- c. Maintaining a professional attitude and manner. _____

4. Indicate which competency is most important “+” and which is least important “-”

- a. Knowledge of the geographic outlay of campus and Isabella County, for example, street names, parks, public libraries, hospital, etc. _____
- b. Considering the relative costs and benefits of potential actions to choose the most appropriate one. _____
- c. Managing one's own time and the time of others. _____

5. Indicate which competency is most important “+” and which is least important “-”

- a. Adapting to new and unexpected situations as they arise. _____
- b. Understanding of University and Residence Hall policies. _____
- c. Diagnosing complex interpersonal or group situations. _____

6. Indicate which competency is most important “ + “ and which is least important “ – “

- a. Managing one's own time and the time of others. _____
- b. Creating a climate of growth and development. _____
- c. Listening to others in an understanding way. _____

7. Indicate which competency is most important “ + “ and which is least important “ – “

- a. Knowledge of the geographic outlay of campus and Isabella County, for example, street names, parks, public libraries, hospital, etc. _____
- b. Ability to confront and work through problem situations. _____
- c. The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem. _____

8. Indicate which competency is most important “ + “ and which is least important “ – “

- a. Creating a climate of growth and development. _____
- b. Pursuing a course of action even if it makes me uncomfortable. _____
- c. Considering the relative costs and benefits of potential actions to choose the most appropriate one. _____

9. Indicate which competency is most important “ + “ and which is least important “ – “

- a. Diagnosing complex interpersonal or group situations. _____
- b. Thinking of and implementing different solutions for different problems. _____
- c. Quickly making sense of, combining, and organizing information into meaningful patterns. _____

10. Indicate which competency is most important “ + “ and which is least important “ – “

- a. Quickly making sense of, combining, and organizing information into meaningful patterns. _____
- b. Adjusting actions in relation to others' actions. _____
- c. Actively looking for ways to help people. _____

11. Indicate which competency is most important “ + “ and which is least important “ – “

- a. Ability to confront and work through problem situations. _____
- b. Recognizing when something is wrong or is likely to go wrong. _____
- c. Thinking of and implementing different solutions for different problems. _____

12. Indicate which competency is most important “ + “ and which is least important “ – “

- a. Understanding of University and Residence Hall policies. _____
- b. The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem. _____
- c. Maintaining a professional attitude and manner. _____

APPENDIX H

COMPETENCY-BASED JOB KNOWLEDGE TEST RESPONSE KEY

Item	Difficulty		Keyed Response
1	Easy	a. Communicating effectively in writing.	3
		b. Listening to others in an understanding way.	1
		c. Being aware of others' reactions and understanding why they react as they do.	2
2	Medium	a. Recognizing when something is wrong or is likely to go wrong.	2
		b. Being open to new experiences.	1
		c. Effectively exercising power and authority.	3
3	Hard	a. Being open to new experiences.	1
		b. Understanding of University and Residence Hall policies.	3
		c. Maintaining a professional attitude and manner.	2
4	Easy	a. Knowledge of the geographic outlay of campus and Isabella County, for example, street names, parks, public libraries, hospital, etc.	3
		b. Considering the relative costs and benefits of potential actions to choose the most appropriate one.	2
		c. Managing one's own time and the time of others.	1
5	Medium	a. Adapting to new and unexpected situations as they arise.	1
		b. Understanding of University and Residence Hall policies.	2
		c. Diagnosing complex interpersonal or group situations.	3
6	Hard	a. Managing one's own time and the time of others.	2
		b. Creating a climate of growth and development.	3
		c. Listening to others in an understanding way.	1
7	Easy	a. Knowledge of the geographic outlay of campus and Isabella County, for example, street names, parks, public libraries, hospital, etc.	3
		b. Ability to confront and work through problem situations.	1
		c. The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem.	2

8	Medium	a. Creating a climate of growth and development.	1
		b. Pursuing a course of action even if it makes me uncomfortable.	3
		c. Considering the relative costs and benefits of potential actions to choose the most appropriate one.	2
9	Hard	a. Diagnosing complex interpersonal or group situations.	2
		b. Thinking of and implementing different solutions for different problems.	1
		c. Quickly making sense of, combining, and organizing information into meaningful patterns.	3
10	Easy	a. Quickly making sense of, combining, and organizing information into meaningful patterns.	3
		b. Adjusting actions in relation to others' actions.	2
		c. Actively looking for ways to help people.	1
11	Medium	a. Ability to confront and work through problem situations.	1
		b. Recognizing when something is wrong or is likely to go wrong.	2
		c. Thinking of and implementing different solutions for different problems.	3
12	Hard	a. Understanding of University and Residence Hall policies.	2
		b. The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem.	3
		c. Maintaining a professional attitude and manner.	1

Note. Keyed responses were determined from job analysis ratings. 1= most important, 2= neither most nor least important, and 3= least important.

APPENDIX I

DEMOGRAPHIC QUESTIONNAIRE

Instructions: Please provide us with some basic information about you. Keep in mind that this information is completely confidential and will only be seen by the research team. If you feel uncomfortable providing a response to any of the items, you may leave the item blank.

Name _____

Gender _____

Supervisor's name _____

How many semesters have you been a Resident Assistant? _____

ACT/SAT _____

Cumulative GPA _____

What Resident Hall do you work in _____

Address you want 10\$ gift card sent to _____

APPENDIX J

PERFORMANCE EVALUATION FORM

Performance Evaluation Form

Directions: Please review the instructions before beginning. Please indicate your response by circling the appropriate number. Once complete put your forms back in the manila envelope, seal it, and return to Sloan 101. If you are unable to return it contact Jack at olin1jp@cmich.edu and he will arrange to pick them up directly.

1. How would you rate this employee's performance *relative* to all other Resident Assistants for which you have been a director of? (Reminder: Please attempt to provide as much differentiation between employees as possible, think of each number as percentiles)

1	2	3	4	5	6	7	8	9	10
One of the worse		Worst than most				Better than most		One of the best	

2. How often does this employee go above and beyond what is required of them on the job?

1	2	3	4	5	6	7
Never	Almost Never		Sometimes	Often		Very Frequently

3. In order to make accurate ratings one needs to be exposed to employee's performance enough to properly gauge it. Please rate how confident you are that your ratings are accurate.

1	2	3	4	5	6	7
Not Confident			Confident			Very Confident

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