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ABSTRACT

This document contains four papers from a symposium on work ethic and values in human resource development (HRD). "Value Priorities of HRD Scholars and Practitioners" (Reid Bates, Hsin Chih Chen, Tim Hatcher) presents the results of a study that identified and analyzed six HRD values reflecting two value facets (locus of HRD influence and HRD outcomes) and a seventh value reflecting a perceived normative component in all HRD activity. "The Development of a Research Instrument to Compare Working Values across Different Cultures Based on Hofstede's VSM (Value Survey Module) Questionnaire" (Salwa Yousef Al-Sharqawi, Sally Anne Sambrook) discusses an exploratory research approach used to adapt Hofstede's Value Survey Module for use in a doctoral research project examining work values in public and private banks in Kuwait and replicating Hofstede's study of cultural dimensions. "An Examination of the Viability of the Work Ethic Construct" (Sharon S. Naquin, Elwood F. Holton) examines the protestant work ethic (PWE) literature and presents an exploratory and confirmatory factor analysis of leading composite measures of PWE constructs. "Cost Analysis of E-Learning: A Case Study of a University Program" (Tim L. Wentling, Ji-Hye Park) examines cost drivers of e-learning programs and analyzes the University of Illinois' online human resource education program. All four papers include substantial bibliographies. (MN)

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Value Priorities of HRD Scholars and Practitioners

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This study identifies, describes and measures a set of six HRD values that reflect two value facets (locus of HRD influence and HRD outcomes) and a seventh value that relates to a perceived normative component inherent in all HRD activity. Results indicated the value scales measured the individual value priorities of HRD scholars and practitioners and that these value priorities varied considerably. Suggestions for future research are offered.

Keywords: HRD Values, HRD Goals

HRD has been characterized as a field in search of itself (Watkins, 1989) and a good deal of literature has been published in the last decade aimed at defining the profession or describing what HRD is or should be. In spite of the fervent discourse, little has been accomplished in terms of generating consensus or moving the field toward an answer to these fundamental questions. It is, as Ruona and Lynham (1999, p. 215) have pointed out,

... a conversation having us – that is, ... a conversation that is ongoing and becomes the prominent focus such that little else actually happens except the having of the conversation. Very few new thoughts are generated, positions are defended, tradition weighs heavy, and very little progress is made in understanding and creating new meaning.

It is noteworthy that, despite this state of affairs, scant research has been done to more fully understand the underlying drivers of the debate. Some valuable work has been done documenting definitions of HRD (Weinberger, 1998; Mclean & Mclean, 2001), articulating different perspectives on the practice of HRD (Dirkx, 1996; Watkins, 1998), and describing the core beliefs of some leading HRD scholars (Ruona, 2000a). However, nothing has been done to uncover and understand the foundation from which these competing definitions, modes of practice, or philosophies emerge. This paper takes the perspective that to fully interpret the discourse surrounding competing definitions, practices, and beliefs about HRD we must first gain some understanding of the values that guide the HRD process. Values are the relatively enduring evaluative criteria or standards that HRD professionals use to make decisions about how the HRD process should happen now or in the future. Values thus represent normative statements describing the ideal state of the HRD process. Discovering and understanding these values is important because they influence the beliefs and attitudes that HRD professionals have about the development of human resources and help form the basis for decision making about individual actions or activities within the HRD process.

The Importance of Values

Values have occupied a central place in the analysis of work systems and have become an increasingly interesting and important area of research in management, organizational behavior, social psychology, ethics and other fields of study (e.g., Argyris & Schon, 1982; Kahle, 1996; Schwartz, 1996). A fundamental rationale for this research is the notion that values can provide potentially powerful explanations of behavior. For example, values have been applied to account for the productivity of nations (Hofstede, 1980), the behavior of organization (Munson & Posner, 1980), and the performance of teams (Maznevski, & Peterson, 1997). In addition, a key to understanding most theories of individual work motivation centers on the goals or desired outcomes around which people organize their actions and cognitions. These theories assert that when goals or outcomes are achieved, they contribute directly to the satisfaction of certain values, values that can and do vary from individual to individual.

Elements can be conceived of as falling within the value domain if they provide a basis for assigning importance to a goal or behavior. In this sense, values represent “a broad tendency to prefer certain states of affairs over others” (Hofstede, 1980, p. 19) and, in effect, describe how an individual feels the world should work or how

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he/she would like it to work. Values thus provide standards for conduct and behavioral guides capable of transcending specific situations (Schwartz, 1992).

It is important to note that values are qualitatively different than attitudes. Attitudes address how individuals feel about a specific situation, condition, or event which predisposes them to respond in some manner (Rokeach, 1972). Values on the other hand are abstract preferences that reflect the state of affairs an individual prefers or thinks is more important. In a survey, for example, 'how satisfied are you with your career opportunities?' is an attitude question, but 'how important should it be for you to have career opportunities?' is a value question. Research has empirically shown that attitudes and values are different constructs not only in the mind of researchers, but also in the mind of respondents (Hofstede, 1998).

According to value theory (Rokeach & Ball-Rokeach, 1989; Schwartz & Bilsky, 1990) values are important because they tend to be structured and stable over time. That is, values are acquired and hierarchically organized to become part of a relatively enduring system. The structure of value systems emerges out of the social and psychological conflicts that accompany the expression of values through action (Rokeach, 1973). For example, actions aimed at improving job-specific performance may conflict with the creation of meaningful work: using the HRD process to maximize individual work outcomes may preclude actions aimed at enabling individuals to fulfill important inner needs through work. Thus, the total pattern of conflicts and harmonies among value priorities produces a structure for value systems (Schwartz, 1994). Value structures provide individuals with an ordered framework for resolving conflicts and making decisions. It is through their influence on decision-making that variations in value structures motivate individual behavior and affect specific actions. For example, an HRD professional who values individual learning as a top priority is motivated to be help others learn, derives satisfaction from increasing learning, and fulfills a personal need when being so engaged. The structure of values may therefore be used to understand how potential behaviors may be ordered in a given situation.

Research has in fact linked values to a wide range of individual behavior including participation in civil rights activities (Rokeach, 1973), personal doing (Levy, 1990), job search, safety behavior, and absence (Judge & Bretz, 1992) to name a few. However, the link between values and behavior is dynamic, complex and not fully understood. Value research has tended to take too narrow a view of this link, ignoring antecedent and intervening variables, and generally viewing the relationship between values and behavior as simple and direct. The failure to study values in the context of other variables is seen by some as the primary reason this research has not generally shown a robust effect between values and behavior (Shrum & McCarty, 1997). It is increasingly recognized that to fully understand the values-behavior relationship research must include potentially important antecedents such as age, education, gender, or income (McCarty & Shrum, 1993a), mediators such as attitudes (Homer & Kahle, 1988) or individual differences (Shrum & McCarty, 1992), and moderators including situational factors as well as the relationship among values themselves (McCarty & Shrum, 1993b).

Purpose of Research

This research is exploratory in nature and represents an initial effort to identify the underlying values about the HRD process held by HRD professionals. Our goal was to create a quantifiable description of how HRD scholars (students, academicians and researchers), and practitioners believe the HRD process should be viewed. Rather than investigate values in general, we were interested in specific individual values as they relate to the HRD process in organizations. An explicit focus of this nature has been referred to as a specific frame as opposed to a general frame (Wilkins & Dyer, 1988). It is hoped that this research will provide greater insight into the ongoing debate about what HRD should be and provide a basis for future research aimed at a more complete understanding of both the philosophy and practice of HRD.

Methodology

To analyze the HRD values domain systematically, an attempt was made to define its essential facets. Facet theory defines facets as "characteristic components of relevant variables . . . that can be used to formulate a definition of a construct because . . . each facet reflects an essential component of a content universe of variable that depicts the construct" (Dancer, 1990, p. 367). Facets are hypothesized elements representing semantic or perceptual properties that distinguish the basic components of variables and provide a frame and approach for measuring a content domain (Edmundson, Koch, & Silverman, 1993). One means of identifying and characterizing value facets is through content analysis of cultural products (Schwartz, 1992). Therefore the identification and classification of HRD values in this study was based on an extensive content analysis of the HRD research and literature representing what is recognized as the three fundamental philosophies about the HRD process (the learning, performance, and

spirituality of work philosophies) (Bates, Hatcher, Holton, & Chalofsky, 2001). Two basic facets were identified as representing the content domain of HRD values: HRD outcomes and locus of HRD influence. Six values emerged from the matrix of these two facets: creating empowering work (CEW), building caring organizations (BCO), building competence through learning (BCTL), creating learning systems (CLS), improving job-specific performance (IJSP), and meeting organizational goals (MOG). The facets and values are shown in Figure 1 along with sample items for each value scale. A seventh value, macro HRD goal (MG), was also identified. This value was seen as distinct from the two primary facets and is described below.

Facet A: HRD Outcomes. A variety of outcomes are attainable from the HRD process. In general, these are reflected in three fundamental outcome domains: meaning of work, learning, and performance. Meaning of work outcomes emphasizes processes that empower and enable individuals to create work that is personally meaningful and that fulfills important emotional and social needs. Learning outcomes emphasize increases in the long-term, work-related learning capacity of individuals, groups and organizations through the development and application of

Figure 1. HRD Value Matrix with Sample Items

		Facet A: HRD Outcomes		
		Meaning	Learning	Performance
Facet B: Locus of Influence	Individual	<p>Creating Empowering Work (CEW)</p> <ul style="list-style-type: none"> HRD should create workplaces that enable people to fulfill important inner needs. 	<p>Building Competence Through Learning (BCTL)</p> <ul style="list-style-type: none"> HRD's focus should be on building individual competence through learning. 	<p>Improving Job-Specific Performance (IJSP)</p> <ul style="list-style-type: none"> HRD activities should enable people to meet specific job-related performance requirements.
	Organization	<p>Building Caring Organizations (BCO)</p> <ul style="list-style-type: none"> A key goal for HRD should be to build a culture of trust and openness in organizations. 	<p>Creating Learning Systems (CLS)</p> <ul style="list-style-type: none"> The creation of effective learning systems should be the most important goals for HRD. 	<p>Meeting Organizational Goals (MOG)</p> <ul style="list-style-type: none"> HRD's goal should be to improve organizational performance.

learning-based interventions for purpose of optimizing human and organizational growth and effectiveness (Chalofsky, 1992; Watkins, 1989). Outcomes in the performance domain focus on those elements of work behavior that directly advance the mission of the work system in which those behaviors are embedded. Performance outcomes are work-system specific and although other outcomes can be nurtured and respected these are secondary to a core focus on mission-related performance. A work system is defined as an interdependent, organized architecture of human activity directed toward the accomplishment of a valued goal or outcome. It is a more inclusive construct than organization and is thought to better reflect the range of HRD activity. Conceptually, the HRD process can be exerted at multiple levels in a work system.

Facet B: Locus of Influence. The second facet concerns the locus of influence of the HRD process and is seen as cutting across HRD outcomes. Locus of influence refers to the point in work systems that the HRD process is applied. The locus of influence elements that emerged in this analysis reflect two classifications: individual influence and organization influence. Individual influence refers to HRD processes directed at meeting the needs of individuals performing in a work system. Organization influence refers to HRD processes directed at meeting the design, structure, management, and process needs of a work system.

Macro HRD Goal. A seventh value, macro HRD goal, emerged independent of the facets identified above. This value relates to what many see as the normative component that should be explicitly recognized as inherent in all human resource development activity. As a value, the macro HRD goal makes explicit the understanding that the propriety of different HRD objectives must be evaluated against an acknowledged overarching criterion. This criterion extends beyond HRD activities in any specific work system and reinforces the idea that improvement, a core theme in all definitions of HRD, can no longer be equated simply with economic growth, productivity, or shareholder return. It also underscores the necessity of recognizing that there are multiple paths of improvement that ultimately can only be evaluated with reference to larger social, ecological, political, cultural, and economic considerations. Examples of items used to measure this value include "HRD should have a responsibility for human development that goes beyond organizational boundaries" and "HRD should work to build healthy relationships between an organization and the external social, cultural, and ecological environment".

Instrument

Data collection in this study employed the use of a standard paper and pencil survey. Items on the survey were worded in a normative manner (e.g., HRD should support and accelerate individual learning) and designed specifically to tap values. Respondents were asked to rate the extent to which they believed the normative statements should be used to guide practice. A five-point Likert-type scale was used with anchors ranging from 1 (never or almost never) to 5 (always or almost always).

Subjects

The sampling frame of this study consisted of HRD educators, researchers, practitioners, and students in HRD programs of study who are members of AHRD, who attended the 2001 AHRD conference, or who have been invited to participate in this study. Respondents in the data set reported here were provided a paper and pencil survey and asked to return it to the authors by mail. Participation in this study was voluntary and as of this writing 84 responses have been collected. Of these, 64 % were female and 36 % were male. In terms of age, 31 % of the respondents were 35 or younger, 64 % were between 36 and 55, and five percent were over 56 years of age. Respondents reported an average of 21 years of formal education counting their first year of formal education as a child. About 39% of respondents were classified as HRD scholars (instructors, professors, or researchers in HRD programs in colleges or universities), 53% as HRD practitioners, and eight percent as students in graduate or undergraduate HRD or training and development programs.

Results

Scale reliabilities ranged from .60 to .89 and can be considered in the acceptable range for early scale development. Scale means for the sample range from a high of 4.05 for building competence through learning (BCTL) to a low of 3.02 for the macro HRD goal (MG). When viewed as an aggregate, the scale means appear to fall into three hierarchical value groupings. A high group consisted of two values, BCTL (\bar{x} = 4.05) and CLS (\bar{x} = 3.90); a second mid-range constellation that included CEW (\bar{x} = 3.65), IJSP (\bar{x} = 3.53), and MOG (\bar{x} = 3.42); and a third group comprised of BCO (\bar{x} = 3.21) and MG (\bar{x} = 3.02). Scale means and reliabilities can be found in Table 1.

Examination of the value scale intercorrelations (see Table 2) yielded several important findings. First, the low to moderate level of intercorrelations between the value scales in this study strongly suggests the scales are measuring qualitatively different values. Second, examination of this data showed several interesting intercorrelations. For example, the significant correlation between MG and CEW ($r = .61, p < .05$) and BCO ($r = .55, p < .05$) suggests that individuals who rated meaning-related values (CEW, BCO) highly also believed that HRD should have a overarching normative goal as a guiding value. Examination of the performance outcome value elements (IJSP and MOG) and their relationships with other value scales shows that the MG scale is negatively correlated with both IJSP ($r = -.29, p < .05$) and MOG ($r = -.23, p < .05$) scales. This suggests that individuals who believe performance outcome values are the most important values to guide the HRD process do not give high priority to an overarching normative goal as a guiding value. In addition, BCO and CEW were negatively related to both performance elements (for IJSP $r = -.28$, and $r = -.28, p < .05$; for MOG, $r = -.24, p < .05$ and $.13, ns$). This indicates individuals who believe that performance outcome-related values should be high priority values to lead the HRD process also give meaning-related values much lower priority.

Table 1. Scale Reliabilities, Means and Standard Deviations

	M	N	α	SD	Male		Female		Scholar		Practitioner	
					α	SD	α	SD	α	SD	α	SD
BCTL	.64	83	4.05	.55	4.03	.59	4.02	.53	4.22	.42	3.87	.61
CLS	.78	83	3.90	.69	3.93	.73	3.87	.67	4.10	.59	3.77	.72
CEW	.83	83	3.65	.71	3.65	.84	3.62	.64	3.90	.62	3.42	.75
IJSP	.64	83	3.53	.63	3.46	.66	3.56	.61	3.36	.60	3.73	.62
MOG	.81	81	3.42	.71	3.32	.67	3.42	.73	3.33	.65	3.46	.78
BCO	.60	81	3.21	.73	3.35	.84	3.11	.66	3.44	.71	3.07	.70
MG	.89	81	3.02	.98	2.93	.99	3.06	.97	3.32	1.04	2.71	.84

BCTL = Building Competence Through Learning CLS = Creating Learning Systems CEW = Creating Empowering Work IJSP = Improving Job Specific Performance MOG = Meeting Organizational Goals BCO = Building Caring Organizations MG = Macro HRD Goal

Table 2. Scale Intercorrelations

	CEW	BCO	BCTL	CLS	IJSP	MOG	MG
CEW	--						
BCO	.65*	--					
BCTL	.53*	.42*	--				
CLS	.37*	.28*	.63*	--			
IJSP	-.28*	-.28*	.03	.26*	--		
MOG	-.13	-.24*	.12	.39*	.58*	--	
MG	.61*	.55*	.31*	.11	-.29*	-.23*	--

* p < .05

Multivariate analysis of variance (MANOVA) was used to examine differences in HRD value priorities by gender and job classification. The job classifications of interest in this study included three categories: students (individuals enrolled in graduate or undergraduate HRD or training and development programs); scholars (instructors, professors or researchers working in colleges or universities); and HRD practitioners (those engaged in the full or part time practice of HRD). For analysis purposes, because of the relatively small number of students in the sample this category of respondents was combined with instructors, professors, or researchers to form a single subset titled scholars. Although analysis showed no significant differences in HRD value ratings between genders (Wilks Lambda = .61, F = .1020.26), it did indicate some significant differences by job classification (Wilks Lambda = .001, F = .77). The tests of between-subjects effects showed significant differences between scholars and practitioners in ratings of all values except MOG (p-values for CEW, BCO, BCTL, CLS, IJSP, and MG were .01, .04, .01, .04, .01, and .01 respectively).

A final analysis examined the relative mean ratings of values by gender, job classification, and across the sample as a whole (see Table 3). Analysis showed that the highest percentage of individuals rated learning-related values (BCTL & CLS) as those most important in guiding the HRD process. Thirty-four percent of the sample ranked BCTL highest and 30% ranked CLS highest in terms of mean rating. On the other hand, it is interesting to

Table 3. Top Ranked Values by Individuals, Gender, and Job Classification

Value	By Individuals		By Gender				By Job Classification			
	N*	%	Male		Female		Scholar		Practitioner	
			N	%	N	%	N	%	N	%
BCTL	24	34	10	37	14	33	12	40	10	29
CLS	21	30	9	33	12	28	11	37	10	29
CEW	8	11	4	15	4	9	3	10	5	14
MG	6	9	1	4	5	12	3	10	1	3
IJSP	5	7	1	4	4	9	--	--	5	14
MOG	4	6	1	4	3	7	--	--	3	9
BCO	2	3	1	4	1	2	1	3	1	3
Total**	70		27		43		30		35	

N* = number of individuals who rated a specific value the highest of all values rated
 Total** = Individuals with two or more values with equal top ratings are not included in this table

note that nine percent of the sample rated the macro HRD goal (MG) highest. In addition, a larger percentage of females than males felt that MG was the most important value that should guide the HRD process (12% versus 4%).

Overall MG had the highest mean rating for a larger percentage of individuals than did IJSP (7%), MOG (5%), and BCO (2.86%). This despite the fact that the MG scale received lowest mean rating of all the value scales.

In terms of job classification, the ranking pattern of four of the value scales (BCTL, CLS, CEW, and BCO) is comparable in terms of the percentage of scholars and practitioners ranking each the highest. One of the most striking findings is that although nearly a quarter (23%) of practitioners gave either IJSP or MOG the highest mean ratings, none of the scholars gave either of these performance outcome-related values the highest mean rating. It is also interesting to note that a substantially higher percentage of scholars (10%) rated MG as the value that should always or almost always guide the HRD process while only 3% of practitioners rated it so. These findings are consistent with value theory and strongly suggest that, while the domain of HRD values may be the same for scholars and practitioners, the structure and relative priority of those values may vary based on the differing challenges individuals face in the expression of those values.

Conclusions

At least two important conclusions can be drawn from this research. First, this research demonstrates that HRD professionals operate from a structured set of values that can be described and measured. For example, this study suggests that individuals who place high priority on meaning-related values (CEW, BCO) also tend to give high priority to a normative, macro-level goal (MG) as a guiding value. On the other hand, individuals who place high priority on performance outcome-related values (IJSP, MOG) do not give high priority to a normative, macro-level goal (MG) as a guiding value nor do they tend to rate learning-related values highly. Understanding value structures such as these is important because they represent enduring evaluative standards that individual HRD professionals use to make decisions about how the HRD process should work. Describing and measuring such structures can give insight into both the actions that individuals undertake in the HRD process as well as the beliefs and attitudes that HRD professionals have about the development of human resources.

Second, the data indicate that the measures used in this study tapped individual value priorities rather than a set of normatively approved values of HRD professionals as a group. This is an important conclusion because, to the extent that values represent group ideals, individuals may be inclined to report values that reflect group norms rather than personal priorities. If this were the case, then the values and value priorities identified in this study would better be understood as cultural conventions of the HRD profession rather than reflective of individual motivations and beliefs.

However, our focus and interest in this study was identifying and describing the personal value priorities of HRD professionals. We believe the data provide evidence that we have been successful in this endeavor. For instance, it is clear from this research that the value priorities of individual HRD professionals vary considerably. Not only did each of the seven values measured received one or more 'top rankings', at most only about one-third of the individuals in this sample were in agreement about any one specific value as that which should be most important in guiding the HRD process. In addition, a number of findings in this study suggest that individual variation in value priorities was associated with individual differences. For example, a higher percentage of women rated MG as a top priority than did men; a substantial percentage of scholars (10%) rated MG as the top priority while only a small proportion of practitioners did (3%); and none of the scholars in this study rated either of the performance-related values (IJSP or MOG) as the top priority whereas nearly a quarter of practitioners gave one of these values the top ranking. If these differences were due to measurement error or error in the respondent's perception of cultural beliefs then it is unlikely that these kinds of systematic differences would have emerged.

Because this study tapped individual value priorities, it would be misleading to draw conclusions from this data about the normative value structure for HRD. Although the descriptive and inferential statistics used in this study were used to characterize the value priorities and differences in this sample, we cannot use this data to conclude that these findings in any way represent the normative value structure of the HRD profession as a whole. In short, the values assessed in this study reflect individual priorities and it is not possible to derive the normative ideals of a larger group or culture from the average of individual responses (Schwartz, 1992).

How This Research Contributes to New Knowledge in HRD

It is perhaps true that "[a]s a profession, we have not done a very good job of working to identify who we are, what we stand for, and what we can [or more importantly should] do for those we serve" (Ruona, 2000b). If HRD is to make headway in determining what the driving goals of our practice should be or how we should define ourselves as a field of research and practice then some understanding of fundamental values driving the HRD process must be

reached. This research represents perhaps the first empirical attempt to identify a specific set of HRD values and to create a quantifiable description of how individual HRD professionals believe the ideal HRD process should be viewed.

One reason that HRD is viewed as a field in search of itself is that the roles and practices that HRD professionals develop and institutionalize vary widely. The rules that govern individual behavior in these roles and practices reflect an underlying set of core values. Even though espoused values (Hofstede, Neuijen, Ohayv, & Sanders, 1990) can differ from values in use (Posner, Kouzed, & Schmidt, 1985) we believe the identification of values in this study has helped to more fully illuminate the worldview from which individual HRD professionals operate and the standards framing individual research and practice.

This research also lays the foundation for future values-related research that could significantly contribute to the field of HRD. The values assessed in this research can be used to more fully understand individual differences in beliefs, attitudes, and organizational practices of HRD professionals. They also provide a means for investigating how values may affect the actual practice of HRD and how person or system factors might affect the values-behavior link. It may also be fruitful to use these measures to investigate how the individual value priorities of HRD professionals in an organization influence the perceived value of HRD or the expected outcomes from HRD. For example, questions about how other stakeholders in organizations (e.g., top management, line managers and supervisors, individual employees, trade unions, customers, etc.) respond to and interpret these values and how are these perceptions are related to the status and perceived value of HRD represent important future research questions.

Finally, it would be a mistake to accept the current findings as the final word on HRD values. The present data was drawn from a small sample of U.S. professionals, almost exclusively AHRD members. This clearly excluded a potentially large number of other HRD professionals, particularly those from other parts of the world. This is critical since research suggests that the definition of HRD varies "from one country to another, and the national differences are a crucial factor in determining the way in which HRD professional work" (Hillion & Mclean, 1997, p. 695). The clear implication is that the values underlying the role and process of HRD may be related to a country's cultural or national values, to the level of economic development, or to the point in the life cycle development of the field in any particular country (Mclean & Mclean, 2001). Consequently, the cross-national and cross-cultural study of HRD values may lead to the identification of additional values not included here.

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The Development of a Research Instrument to Compare Working Values Across Different Cultures—Based on Hofstede's VSM Questionnaire

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This paper describes the exploratory research approach used to adapt Hofstede's questionnaire (Value Survey Module, VSM94) for use in a doctoral research project examining work values in public and private banks in Kuwait and replicating Hofstede's study of cultural dimensions. Drawing upon focus group and interview findings, 'Kuwaiti' values were identified and the original VSM questionnaire was adapted for use.

Keywords: Hofstede, Replication, Kuwait

This paper draws upon a doctoral research project, where the final aim is to replicate Hofstede's study. This suggests the use of Hofstede's instrument. However, the authors consider that the VSM needs to be looked at from a Kuwaiti perspective, to remove any 'western' bias. To address this, the approach followed was similar to that used in the development of the 'Chinese Value Survey' (CVS) by Michael Bond (Chinese Culture Connection, 1987). Bond consulted Chinese social scientists for a list of values important to the Chinese, and then developed a questionnaire incorporating these values. Similarly, when consulted about using the VSM to investigate Kuwaiti culture, Hofstede (personal interview 07 May 2000) highlighted the need to incorporate specific values, recommending the use of focus groups. These values could then be incorporated into a contextually adapted questionnaire. Thus the basic research tool had to be evaluated for applicability and suitability to Kuwait. The focus group and interview techniques were used to identify these values. These were incorporated into a new questionnaire. This paper details the process of *modifying* the VSM94 for Kuwait and presents the results of the focus group and interviews.

The Issue under Study

Beginning in 1966, Geert Hofstede (1980) conducted a research to explore cultural differences. He derived four cultural dimensions: individualism, masculinity, power distance, and uncertainty avoidance. Theoretically, these could explain cross-cultural behavioral differences. The issue is if the questionnaire itself is culture-free, that it does not deal with culture-specific values. Exploring differences and similarities among cultures is problematic, mainly because cross-cultural research can be limited by the 'made in America' theories, where there is an indiscriminate export of a theory to a cultural context where its application is inappropriate. To address this, Bond *et al* (1987) developed the Chinese Value Survey. Turning to the Kuwaiti context, and wary of any cultural bias, the authors of this study examined a Kuwaiti sample to assess if the VSM in its present form could be applied to Kuwait and then be used to replicate Hofstede's study in Kuwait. However, initial findings suggested that the VSM needed to be adapted to incorporate values identified as being important to Kuwaitis. This paper presents these findings.

The Theoretical Framework of the Study

This paper is an investigation of Kuwaiti work values. Once identified, it is then possible to determine how these score on a series of cultural dimensions. Thus, it is first necessary to consider what we mean by culture. A human society is made of individuals, joined by relationships and codes of conduct that dictate actions and behaviors. These behaviors are commonly referred to as the social or national 'culture'. Schein describes culture as 'a pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think and feel in relation to those problems,' (1997, p. 12). Hofstede defines culture as the "collective programming of the mind that distinguishes the members of one group of people from another" (2001, p. 9). To study and compare cultures, researchers need conceptual frameworks to understand patterns and practices. Hofstede says that such frameworks must 'consist of empirically verifiable, more or less independent dimensions on

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which cultures can be meaningfully ordered' (1980, p. 36), such as 'values' and 'culture'. At the center of any society is the 'value system' (Hofstede, 2001, p. 11) adopted by the majority of the population, originating in social institutions like family, education, politics, history, etc. Cultural changes come from forces of nature and forces of human beings. Hofstede (2001) points out that individual differences within the same culture may be due to age (values shift with age), generation (values in young people of a certain period and continuing over the lifetime) and / or zeitgeist (drastic system changes that cause total value shifts). The following model shows the formation of culture. The central proposition is that socio-political environment is responsible for shaping the culture. Any environmental modifications reflect in the culture and individual behaviour.

Table 1. *The Formation of Culture*

<i>FORCES OF NATURE (Direction of effect ↓)</i>				→	Culture, Attitudes, Values, Behaviors in society
<i>SOCIO-POLITICAL FACTORS</i>					
- Government	- Legal system	- Economic conditions	- Trade		
- Level of Technology	- Religion	- Media	- Health		
- Education System	- Parenting / upbringing	- Urbanization	- History		

Interested in identifying possible cultural differences, Hofstede administered the VSM in 20 languages to 116,000 IBM employees in 50 countries. He analyzed the data such that he could compare results across countries. From a factor analysis of cultural averages, his study proposed four cultural dimensions each located on a 'continuum ranging from high to low, along which nations could be also placed' (Tayeb, 2001, p. 92). A fifth dimension was added later. Following are the definitions of the five dimensions of national culture:

- Power Distance – The extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally (Hofstede, 2001, p. 98).
- Individualism – This stands for a society in which the ties between individuals are loose. Everyone is expected to look after him/herself and her/his immediate family only. Collectivism stands for a society in which people from birth onwards are integrated into strong, cohesive in-groups, which throughout people's lifetimes continue to protect them in exchange for unquestioning loyalty (Hofstede, 2001, p. 225).
- Masculinity – This stands for a society in which social gender roles are clearly distinct. Men are supposed to be assertive, tough, and focused on material success; women are supposed to be more modest, tender, and concerned with the quality of life. Femininity stands for a society in which social gender roles overlap. Both men and women are supposed to be modest, tender, and concerned with the quality of life (Hofstede, 2001, p. 297).
- Uncertainty Avoidance – The extent to which the members of a culture feel threatened by uncertain or unknown situations (Hofstede, 2001, p. 161).
- Long Term Orientation – This stands for the fostering of virtues oriented towards future rewards, in particular, perseverance and thrift. Its opposite pole, Short Term Orientation, stands for the fostering of virtues related to the past and present, in particular, respect for tradition, preservation of 'face' and fulfilling social obligations (Hofstede, 2001, p. 359). Initially identified as Confucian Work Dynamism, this dimension was added after the 'Chinese Value Survey' (CVS) by Michael Bond (Chinese Culture Connection, 1987).

To validate his findings, Hofstede (2001) later used nine geographic, demographic, and economic indicators: national wealth, past and present economic growth, geographic latitude, population size, population growth, population density, organizational size and relative organizational size (to the total inhabitants of the country). This correlation lead to a suggested causal chain for the origin of national differences. Further cross-cultural research has been conducted based on Hofstede's methods. Three main studies are briefly reviewed below.

Michael Bond and the Chinese Culture Connection (1987): Bond constructed a Sinocentric version of Hofstede's study and demonstrated a Western bias in the VSM. Introducing a deliberate eastern bias in the Chinese Value Survey (CVS) questionnaire, Bond studied values of students in 23 countries. Bond's results replicated Power distance, Individualism, and Masculinity, but failed to find Uncertainty Avoidance, and instead discovered a fifth dimension: Confucian Dynamism (now called Long-term Orientation), that was rooted in Confucian teachings.

Shalom Schwartz's country level analysis (1987, 1990, 1992, 1994): Schwartz *et al.* (Schwartz, 1992, 1994; Schwartz & Bilsky, 1987, 1990) proposed the universal structure of value theory that clusters cultures into groups and explains differences and similarities. Schwartz first identified mankind's fundamental issues, and then found value dimensions. He identified 3 fundamental biological, social and survival needs. Then 56 values were identified and students and schoolteachers in 50 countries indicated the extent to which these values had guided them.

Though more numerous, Schwartz's work is a refinement of Hofstede's research. There are values like stimulation and hedonism (similar to Individualism) and opposites like security, tradition, and conformity (similar to Collectivism).

Charles Hampden-Turner & Fons Trompenaars (1993, 1994): Trompenaars and Hampden-Turner identified five value orientations: universalism/particularism, individualism/collectivism, neutral/emotional (replaced with equality/hierarchy, 1994), specific/diffuse and value achievement/ascription. Additionally there are attitudes to time and attitudes to the environment. The universalism/particularism orientation (preference for rules rather than relationships) can be interpreted as part of both Uncertainty Avoidance and Individualism. The individualism/collectivism orientation is identical to Hofstede's individualism. The neutral/emotional orientation (range of feelings expressed) appears to be part of Masculinity. The achievement/ascription orientation (how status is accorded) is linked to Power Distance. The specific/diffuse orientation (range of involvement) cannot be directly linked.

Research Questions or Propositions

Having reviewed these studies, it can be suggested that simply 'applying' research instruments developed in one cultural context to another will fail to address cultural bias. This highlights the inadequacy of Western frameworks to analyze non-Western cultures. Thus, the authors had to establish a research instrument that would 'fit' the Kuwaiti context. It was considered necessary to introduce a 'Kuwaiti' bias to the VSM, by adding questions based on values that are important to the Kuwaitis, and shifting the focus of the VSM to Kuwait. This raises methodological and research questions. Can an instrument designed in one cultural context be applied to another? Would the results be the same, different or altogether incorrect as the measures are wrong? Would it be possible to identify a new set of values specific for Kuwait, by modifying VSM94?

Methodology

Kuwait provides a unique context in which to examine work values. Kuwait, within the Arab world and Asia, is far from the European and North American base from where most of the commonly held theories arise.

- *Geographical and eco-political aspects:* Kuwait is located in the Middle East, bordering the Persian Gulf, between Iraq and Saudi Arabia, occupying 17,820 sq. km, at 29° 30' N, 45° 45' E latitude (CIA, 2001). The terrain is flat to slightly undulating desert plain with intensely hot summers and short, cool winters. Kuwait was a fishing, pearling and trading community on the Europe - India trade route, before oil was discovered in 1938. The 1960-70s saw rapid development. Kuwait has about 10% of the world's oil reserves. Kuwait is a quasi-hereditary emirate. The ruler, the Amir, is chosen by the members of the ruling family from amongst themselves. Islam is the state religion. Arabic is the state language, but English is widely spoken.
- *Demographic structure:* Kuwait's population is about 2,041,961 (CIA, 2001. July 2001 est.), of which 1,159,913 are non-nationals, mainly Egyptians and Indians. The population growth rate is about 3.38% (CIA, 2001. 2001 est.). The population density (per sq. km) is 107.4 (Hutchinson Family Encyclopedia, 2000. 1998 est.). Of the labor force only 16% is Kuwaiti, of which 92% works in the public sector. 32% of the Kuwaiti labor force works in the public and private banks (Institute of Banking Studies, 1994).
- *Role of the family:* In Kuwait, the family is an important cultural influence. Traditionally, families were a single, large, extended economic unit. Often male children would continue to live in the family home, with their own families. The Oil Era and urbanization lead to nuclear, double income families. This resulted in dependence on domestic help. This, though not unique in itself, had peculiar effects on Kuwait.
- *Effects of the dependence on domestic help:* In 1997, 62% of all Kuwaiti households had at least one South East Asian female domestic worker (Central Statistics Office, 1998). This greatly altered the values and behaviors of young Kuwaitis. They grew accustomed to having someone providing services to them. 'Work' and the 'need to work' became synonymous with these workers. Young Kuwaitis feel no need to work for a living since their family and the government is obliged to provide for them. (Higher Planning Council, 1991)
- *Welfare System and Social Security Scheme:* The government's cradle-to-grave welfare system provides Kuwaitis with free housing, health, and education. This has created a group of individuals who rely on social aid and feel no need to earn a living. A divorced woman for example, who can work, may choose not to work as she gets social aid. Additionally under the Social Security Scheme, male Kuwaitis can retire after 20 years of service (15 years for females) (Public Authority for Social Security, 1995). Many choose this option.
- *Work Ethics:* The private sector is not appealing as most Kuwaitis prefer the relaxed and guaranteed employment of the public sector. Many in Kuwait's post-Oil generation grew up perceiving work as a form of social gatherings.

There is apathy to work, low productivity, lack of commitment, and a resistance to discipline.

- *Emphasis on Status and Hierarchy:* In Kuwaiti society status distinctions play a vital role in public and private life. Birth and clan are determinants of the status and prestige of a particular person. Very often, hierarchy or legalities are over ridden by family connections or clan affiliations (*wasta* = Arabic for 'reference' – literally).

Selection of Survey Content and Subject

It was important to identify and isolate these 'Kuwaiti' values, to modify the VSM94. As a first step, the research process included a focus group. This method was chosen as it allows maximum interaction and cross-questioning and it is possible to explore opinions, attitudes, and beliefs. To support this, interviews were conducted with job applicants. In addition, to augment the findings of the focus group and interviews, human resource managers were interviewed as well. The questions for the focus group and the interviews were based on a consultation that the Kuwaiti author had had with Kuwaiti colleagues, from various functional areas such as marketing, finance, and human resources. These individuals first listed values that they felt were important for Kuwaitis. In this way, the Kuwaiti author collected a set of 'Kuwait values'. Based on this she prepared a set of questions that when asked to a sample of Kuwaitis would hopefully yield the same answers as in the list. The questions were first developed in English and translated independently by two bilingual persons. An acquaintance of the Kuwaiti author, Essa Al-Jassem, former Research and Development Director, Ministry of Education, guided in re-writing the questions. He also circulated the questions to his 'bilingual' acquaintances for back-translation and content equivalence.

Table 2. Demographic Breakdowns of the 33 Focus Group and 12 Kuwaiti Interview Participants

Age group (years)	Focus group	Interviews	Gender	Focus group	Interviews
22-24	9	9	Male	23	8
25-29	9	3	Female	10	4
30-34	2	-			
35-40	6	-			
41-45	2	-			
45+	5	-			

Education	Focus group	Interviews	Place of education	Focus group	Interviews
Secondary School	4	-	Kuwait	27	12
High School	6	4	United States	5	-
2 year diploma after high school	10	5	Egypt	1	-
University	12	3			
Master	1	-			

Sector of employment	Focus group	Interviews	Work experience (years)	Focus group	Interviews
Public sector employee	20	1	0-1	6	6
Private sector employee	10	5	2-3	6	4
Recent graduate	2	6	4-5	3	1
Retired	1	-	6-10	5	1
			11-15	2	-
			16-20	5	-
			21-25	3	-
			26+	3	-

The Focus Group Session – Sampling and Data Collection

A focus group of 33 participants was convened on July 23, 2001. To assemble the participants, the snowballing technique used. The Kuwaiti author asked friends and acquaintances to invite their friends and acquaintances and so forth. The main criterion was that the participants had to be employed, retired or looking for a job. Students and housewives were not included. Before the session began, the participants were briefed about the project. Flipcharts

were used during the interactive session to ensure the clarity of the questions. Notes were taken, and the session was audio-recorded and later transcribed. In the focus group, four main questions were asked.

1. What does work mean to you? What are you trying to achieve through work?
 2. What were you trying to achieve in the beginning of your career and has it changed now? If so, how?
 3. What are your expectations from your organization, colleagues, and superiors?
 4. What are the factors that can make you change your job for another?
- To validate these answers, twelve job applicants were later interviewed separately, with the same questions.

The Interviews

Four human resources managers were interviewed (3 - private banks and 1 - public bank). They were asked similar questions as the focus group to help confirm the former answers. Specific questions about the private and public sector were asked as this issue is peculiar to Kuwait.

1. Why Kuwaitis prefer the public sector over the private sector?
2. Why staff turnover rates are much higher in the private sector than the public sector?
3. What a job really meant for Kuwaitis?
4. What are Kuwaitis expectations from a job and the organization?

Key Findings

Focus Group Findings

1. *What does work mean to you? What are you trying to achieve through work?* Majority mentioned income as the reason for work. Others said that they worked to augment family income. Some worked to provide for material possessions like cars, etc and to meet community expectations. Socializing, networking, and building relationships through the job were specific purposes. Doing favors and obliging others, achieving 'power' by working in prestigious organizations and influencing decisions was another reasons. 'Self satisfaction' came in much later.
2. *What were you trying to achieve in the beginning of your career and has it changed now? If so, how?* Older participants said that they had been looking for 'achievement' while younger participants mentioned income.
3. *What are your expectations from your organization, colleagues, and superiors?* Most participants said that they wanted to work with very little pressure. For organizational expectations, some said that they expect jobs that allow adequate personal time. Flexible working hours were also welcome. Other expectations were getting long and frequent leaves. Some expected their company to follow Islamic percepts (mostly banks employees - Islam forbids interest/usury - and law firm employees -distortion of facts to plead a case is seen as deceit). Some wanted comfortable physical working conditions. Opportunity for on-job training or education with full scholarship had medium importance. Noticeably, very few mentioned what they would do or contribute to the organization or the country. Many said that they look for informal terms with their colleagues, after working hours as well. As for superiors many participants said that they did not welcome any criticism of their performance. It was seen that males did not mind working for a female boss, while females preferred a male superior.
4. *What are the factors that can make you change your job for another?* Majority said that the main factor would be the level of 'appreciation' given, most wanted to be pampered. Additionally, being consulted for day-to-day decisions was very important. Many said that the job title was important. A person is willing to work as a 'secretary' but wants the title of 'office manager'. The job is not important, the social acceptance of the job designation is. Career advancement came much later, although, this *must* be accompanied by an increase in income as well. Few mentioned that they would switch for jobs that offered new and international experiences.

Specific Demographic Correlations: Participants who were better educated, older and held higher managerial positions mentioned that 'achievement' was important for them. More older and experienced participants said that in the beginning of their career they were looking for 'achievement' and not money. On the other hand, younger participants said that they are trying to achieve a high level of income. It was also noticed that participants who were educated outside Kuwait were more focused on issues like training opportunities and self-satisfaction.

Interviews Findings

Job applicants were asked questions similar to the focus group. The outcomes were comparable.

From the interviews of the Human Resources managers, these observations were noted:

- 1) *Reasons for Kuwaitis' preference for the public sector over the private sector:* The main reasons were job security (no one can be 'fired'), high salaries, less work pressure, less demand for productivity, flexibility to leave the workplace for personal reasons (relaxed attendance rules), long annual leaves and generous retirement schemes.
- 2) *Reasons for high staff turnover rates for Kuwaitis in the private sector:* Services can be terminated for non-performance, there is demand for productivity with longer working hours and attendance regulations. These observations are supported by the results of a study by the Institute of Banking Studies (1994).
- 3) *What a job really meant for Kuwaitis:* In order of importance: Income, authority, networking and satisfaction.
- 4) *Kuwaitis' expectations from a job and the organization:* Kuwaitis give little and expect more. 'Expectations' include that the company must accept social and personal obligations. Kuwaitis expect *much* appreciation for doing their job and expect to be promoted faster. Kuwaitis are difficult to manage, as they resist authority and corrective criticism. Any coaching or remedial measures are unacceptable (Item responses available by contacting authors.)

Conclusions

From the focus group and interviews, it can be concluded that there appear to be distinct work values among Kuwaitis. The foremost observation is that there are cultural factors that the VSM is not equipped for. In principle, the VSM94 is transferable in totality. However, the question is how to address the cultural issues whose measurement is not provided for in the VSM. Many Kuwaiti values do not have equivalents in the VSM. This has implications for any research intended to replicate Hofstede's study. For example, the addition of questions to fine-tune the VSM to the sample under study has been done by Micheal Hoppe (1990). He used a questionnaire that had the IBM questions plus a section on organizational learning, and approached the alumni of the Salzburg Seminar, Austria, a cross section of international leaders from politics, business, art, and education. Out of the four dimensions, masculinity required different questions and computations (1998), implying that there was no single set of questions. Hofstede (2001) says that the ideal questions must be nationality dependent and mean the same to all society members. The VSM was developed for IBM in the 70s, meaning that questions have to be adapted to the intended respondents, situation, and period. For this purpose, 29 additional questions are proposed.

Translation and Content Equivalence. Having identified these additional work values, the new contextualised questionnaire was finalized in English to maintain closeness to the VSM and then it was translated into Arabic. Mr. Essa Al-Jassem assisted once again with the back-translation and content equivalence. The questionnaire was then pilot tested with 12 respondents to check the continuity and flow of questions. The questionnaire has been used in the main data collection phase with employees of public and private banks in Kuwait. The data analysis is in process.

Further Course of Action

Once the data is collected from this modified questionnaire the findings will be analyzed and used to modify Hofstede's value system to reflect Kuwaiti values. This next course of action is the aim of the thesis. Both the original VSM questions and the added questions will be treated according to Hofstede's methodology. It is only after the factor analysis that it will be clear which dimension the new questions align with, or if there is a new alignment. Reliability and validity analyses will be done *later*. This stage is the preliminary one.

How this knowledge contributes to new knowledge in HRD

Bond (1987) demonstrated the need to be cautious in generalizations. The key (methodological) conclusion from this study is that any research instrument has to be adapted for the local culture before application. This study reinforces the need to adapt 'generic' research instruments so that they are culturally relevant to investigate values within a specific context. Kuwait, excluded from Hofstede's research on account of small sample size, presents unique geographic, economic, demographic and political indicators for a study of cultural variations. This study contributes to existing knowledge of cross-cultural analysis by identifying work values in a previously unresearched context. The completion of this thesis will add to the countries already studied by Hofstede and others, and will serve as the benchmark and prepare ground for repeat surveys. This is mainly because a limited number of such studies have been done for Kuwait. A study by the Institute of Banking Studies (1994) on the high turnover among Kuwaitis in the private banking sector is worth reviewing. Among other issues, the study analyzed the social and educational characteristics of the sample, the reasons for resignation and the extent of satisfaction with the current job. It also

analyzed the extent to which the respondents said that they were able to achieve their goals through the new job. Empirical findings from this thesis will also contribute to new knowledge in HRD by providing understanding of Kuwaiti work values. This can assist human resource practitioners in developing more culturally relevant HR practices, for instance, designing relevant interventions to change Kuwaiti orientations to work. The knowledge of the Kuwaiti culture and the dominant work values can be applied to training programs to increase motivation, and Kuwaiti policy makers can draft better methods to remedy the problems of low productivity in the native workforce. This thesis will also provide a platform for further research. Kuwait is a multi-ethnic, multi-cultural society. The current sample is the Kuwaitis in Kuwait. Similar studies can be conducted for the different residents of Kuwait, giving an insight into the work values of expatriates. Another question that can be answered is that would the Kuwaitis demonstrate similar values if they were an expatriate group working in the USA, UK or India. All this will proceed to contribute categorically to new understandings of cultural work values and thus contribute to international developments in Human Resources Development.

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An Examination of the Viability of the Work Ethic Construct

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This paper discusses the Protestant Work Ethic (PWE) literature and conducts exploratory and confirmatory factor analysis on leading composite measures of PWE constructs. Exploratory factor analysis results replicated those found in previous literature. However, confirmatory factor analysis, which had never been done in the literature, showed that the scales did not load on the PWE latent construct. Thus, it is recommended that PWE not be used in HRD research.

Keywords: Work Ethic, Dispositional Effects, Values

Employers frequently mention work ethic (also termed Protestant Work ethic or PWE) as a desirable characteristic of employees (Hill, 1992). HRD research has paid little attention to the work ethic construct. Thus, there are three primary purposes of this paper – to review the PWE literature as it relates to HRD; to use confirmatory factor analysis to test the dimensions of the work ethic construct, and to discuss the viability of this construct in future HRD related research. The work ethic construct has not been tested using Confirmatory Factor Analysis (CFA) techniques. Previous work ethic exploratory factor analysis (EFA) techniques only serves to determine whether the data have separate common factors underlying the item responses. EFA does not establish whether those separate constructs load on a single, higher order construct. This requires either a CFA or a second order EFA.

Review of Related Literature

Countless researchers have offered definitions of the work ethic construct. Greenberg (1977), for instance, identifies work ethic as a personality construct, and Morrow (1983) defines the term as the extent to which a person believes in the importance of work itself. Depending on the specific conceptualization and measure chosen, ideas related to the importance of independence, self-sufficiency, frugality, paid employment, and explicit rejection of leisure are also part of the definition” (Morrow, 1993, p. 1). Other researchers extend their conceptualizations of the work ethic past the notion of intrinsic value and introduce personal accountability and responsibility for the work that an individual performs into the definition of work ethic (Cherrington, 1980; Colson and Eckerd, 1991; Yankelovich and Immerwahr, 1984).

There are other characteristics attributed to individuals with high levels of work ethic. As defined by Weber (1958), these principle aspects of PWE include: individualism (the assertion of one's uniqueness), asceticism (the renunciation of the comforts of societal in favor of an austere, self-disciplined lifestyle), and industriousness (assiduous work or study, diligently active). Of these, industriousness probably represents the most critical aspect of PWE (Wollack, Goodale, Witjing, and Smith, 1971). Furnham (1990b) provides more detailed descriptions of the characteristics associated with the construct. Some of these characteristics are a high internal locus of control (Furnham, 1987; Lied and Pritchard, 1976; Waters, Bathis, and Waters, 1975); conservative attitudes and beliefs (Furnham and Bland, 1982; Joe, 1974; MacDonald, 1971), individualistic attribution styles (Furnham, 1982b; Feather, 1984); and a high need for achievement (McClelland, 1961; Furnham, 1987). Furnham (1990a) also contends that high PWE scorers are independent-minded, competitive, and hard working.

Representing a set of values related to work, work ethic generally seems to refer to a commitment to work that is stronger than just providing a living (Barbash, 1983, Lenski, 1961). Thus, the PWE, according to Aldag and Brief (1975), Rim (1977), and Wannous (1974), also serves other functions – patterning and regularity of working hours, intrinsic work satisfaction, and role-identity with the task.

The concept of work ethic has also been defined for “an individual (or for a more or less homogeneous group of individuals) as a value or belief (or a set of values or beliefs) concerning the place of work in one’s life that either (a) serves as a conscious guide to conduct or (b) or is simply implied in manifested attitudes and behavior” (Siegel, 1983, p. 28). This definition is an important one because it applies to a wide variety of groups: it is culture-free, neutral to a historical context, to location, and to nonwork interests. It is also “positive” as opposed to being “normative,” and allows room “for all the composite work ethics that have been described or sponsored in a vast corpus of sociological, political, and religious literature – Protestant, Calvinistic, Puritan, Primitive, Christian,

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monastic, feudal, Talmudic, Buddhist, utopian, communist, etc” (Siegel, 1983, p. 28).

As the above definitions illustrate, there is no fixed definition of the construct. One of the primary reasons for this is the fact that work ethic is multidimensional and is associated with aspects of economic, political and social life. In this study, work ethic is considered to be a personal value. Regardless of the definition adopted, however, researchers generally agree that work as the core of a moral life is the central premise of the work ethic concept (McCracken and Falcon-Emmanuelli, 1994, p. 5). “Work makes people useful in a world of economic scarcity: It staves off the doubts and temptations that preyed on idleness; it opened the way to deserved wealth and status; it allowed one to put the impress of mind and skill on the material world” (Rodgers, 1978, p. 14).

Theoretical Foundations Of PWE. Regardless of the definition used to describe the term, researchers attribute the origin of the construct to sociologist Max Weber’s (1958) PWE theory (i.e., Barbash, 1983). Weber’s treatise maintained that the work ethic involved an entire philosophy of life (Cherrington, 1980), related business success to religious beliefs, and first introduced the concept of the Protestant Work Ethic. Weber wrote, “Labour must be performed as if it were an absolute end in itself, a calling” (1958, p. 62). According to Weber (1947), “the holder of the Protestant Ethic is committed to the values of hard work, to the work itself as an objective, and the work organization as the inevitable structure which those internalized values can be satisfied” (Kidron, 1978, p. 240).

The PWE construct emerged from Calvinistic and Quaker individualism and asceticism (Maccoby, 1983). Weber recognized this, and described the Calvinist tradition of frugality, hard work, conservatism, success and its contribution to capitalism (1904-1905, 1958). “Unlike the Lutheran view of a calling as one’s fate that should be accepted with good grace, the Calvinistic-Puritan view demanded constant work at one’s ‘calling’ as proof of one’s faith and membership in God’s elect. Citing the parable of the talents (Matthew 25), the Puritan was urged to prosper: ‘ You may labor to be rich for God, though not for the flesh or sin’ (Maccoby, 1983, p. 183).

Though the origin of the concept had religious affiliations, the current conceptualization is much more a secularized construct (Hill and Petty, 1995). The underlying attitudes and beliefs that have contributed to and supported hard work have been incorporated into Western cultural mores and are no longer solely connected with a particular religious sect (Hill and Petty, 1995; Rodgers, 1978; Rose, 1985a). However, many of the characteristics associated with the construct are still applicable today.

Studies Relating To Work Ethic. Much of the research effort relating to work ethic have been focused on devising psychometrically sound measures of the PWE; examining the relationship between PWE beliefs and other work and non-work behavior; and investigating the relationship between the PWE beliefs and other individual difference measures of personality, values and social attitudes (Furnham, 1982b, 1983, 1984b, 1985, 1986, 1990). Furnham (1990a), for instance, content analyzed seven work ethic scales. He found that items from PWE fit into six possible categories: 1) work as an end in itself, 2) hard work and success, 3) leisure, 4) money/efficiency, 5) spiritual/religious, and 6) morals.

In a study designed to examine the relationship between work behavior and the PWE, Merrens and Garrett (1975) found that individuals with high PWE scores performed better and longer on tasks designed to provide low motivation and interest levels. Also, Greenberg (1977) found that negative performance evaluations resulted in performance improvement among individuals with high PWE scores and a decrease in performance levels among individuals with low PWE scores. Greenberg (1979) also found that high PWE scorers had a tendency to take both productivity levels and duration of work into consideration when making decisions regarding the allocation of money to hypothetical workers. In contrast, individuals with low PWE scores used the duration as the only criterion in deciding how to distribute funds.

Other correlates of PWE include higher order strength needs, authoritarianism, and internal locus of control (Morrow, 1983). The construct has also been studied with regard to job design variables (Ganster, 1980; Sekaran, 1989), psychological distress (Jackson et al., 1983; Stafford et al., 1980), days off (Koslowsky et al., 1990), sick days (Koslowsky et al., 1990), employment status (Stafford et al., 1980), mental health (Stafford et al., 1980), occupational rank (Dickson and Buchholz, 1977), religion (Buchholz, 1977) and job satisfaction (Morrow and McElroy, 1987). Morrow (1993) also reported:

A composite measure of professionalism and five constituent subscales . . . demonstrated correlations with PWE ranging between nonsignificant and $r = .34$ (Morrow and Goetz, 1988) while job involvement . . . and PWE correlations ranged between $r = .24$ (Sekaran, 1989) and $r = .41$ (Morrow and McElroy, 1986). Organizational commitment . . . and PWE correlations were between $r = .28$ (Morrow and Goetz, 1988) and $r = .42$ (Morrow and McElroy, 1986) (Morrow, 1993).

PWE has also been investigated in several different cultures (Tang, 1993). Tang (1993) lists these as Great Britain (Furnham, 1984a, 1984b, 1989; Furnham and Muhiudeen, 1984), Malaysia (Furnham and Muhiudeen,

1984), Taiwan (Ma, 1986; Ma and Smith, 1985; Tang, 1990; Tang and Bumeister, 1984), Hong Kong (Ma, 1987); New Zealand (Poulton and Ng, 1988), the Caribbean islands (Gonsalves and Bernard, 1983), East Africa (Munroe and Munroe, 1986), and South Africa (Bluen and Barling, 1983). This diversity in foci of studies gives testimony to the fact that researchers generally attribute great significance to the strength of the work ethic to pervade many aspects of life.

McClelland (1961) drew heavily upon Murray's work and became a pioneer in the attempt to conduct a psychological analysis of PWE (Furnham, 1990a). Their efforts were primarily directed at examining the relationships between an individual's need for achievement (n Ach) – which is considered a dispositional or psychological individual difference variable-- and economic growth. Based on McClelland's studies, Furnham (1990b) concluded that n Ach "is clearly a major component of the PWE though these overlapping concepts are not identical. The latter is multi-dimensional, while the former unidimensional" (p. 29).

Method

Sample. Data for this study were obtained from a nonrandom sample of 245 subjects from a single private sector health insurance organization. Respondents were participants of in-house training programs, and ranged from clerical employees to mid- to upper-level managers. Training topics included computer training, team building skills, new employee training, technical training, and leadership training sessions.

This sample size is well within the recommended range for structural equation modeling research studies (Hair et al., 1998; Kelloway, 1995). Generally, a minimum of 200 subjects is recommended (Hair et al., 1998), and a respondent to parameter estimated ration of 5:1 is considered adequate. In this model, the ratio falls within the acceptable range.

The average age of the respondents was 35.5 years (min. = 19 years, max. = 68 years, sd = 10.516); 28.4% or 68 of the respondents were male and 71.6% or 171 of the respondents were female. Five of the respondents (2.0%) had less than 1 year work experience; 16 respondents (6.7%) had 1-3 years work experience; 30 respondents (12.6%) had 3-5 years work experience; 101 respondents (25.1%) had 15-25 years work experience; and 27 respondents (11.3%) had more than 25 years work experience. Fifty-five respondents (23%) reported 1-3 years with the company; 36 respondents (15.06%) reported 3-5 years with the company; 48 respondents (20.08%) reported 5-15 years experience with the company; 39 respondents (16.3%) reported 15-25 years with the company; and 6 respondents (2.5%) reported more than 25 years with the company.

Procedure. Surveys were administered to respondents prior to their participation in an organizational training program. All participants were required to attend these classes as part of their job responsibilities. In each case, the trainer read a description of the research project with instructions for participation from a prepared script. Questionnaires were presented to participants as part of the training program. Instructs were told to allow the participants to withdraw if they had any objections to the study: none objected, however.

Measuring Work Ethic. Furnham (1990a, 1990b) conducted a comprehensive review of the work ethic literature (Blau & Ryan, 1997). He cited seven measures of the construct: Protestant Ethic (Goldstein & Eichorn, 1961); pro-Protestant Ethic and non-Protestant Ethic (Blood, 1969); Spirit of Capitalism (Hammond & Williams, 1976); Protestant Work Ethic (Mirels & Garrett, 1971); Leisure Ethic and Work Ethic (Buchholz, 1977); Eclectic Protestant Ethic (Ray, 1982); and Australian Work Ethic (Ho, 1984). Furnham a priori content analyzed and then empirically factor analyzed these measures. His content analysis indicated that there are seven dimensions of PWE: hard work, nonleisure, independence, asceticism, separate morals and spiritual/religious factors. His subsequent factor analysis with varimax rotation found empirical evidence for five factors: belief in hard work; leisure avoidance; religious and moral beliefs, independence from others and asceticism. The multidimensionality of this construct (e.g., multiple eigenvalues greater than unity) is also supported by factor analyses by Heaven (1989), Tang (1993), and Mirels and Garrett (1971).

Building on the work of Furnham (1990a, 1990b), Blau and Ryan (1997) conducted exploratory factor analyses to identify dimensions of the work ethic construct. Their study revealed a four-dimensional construct: hard work, nonleisure, asceticism, and independence. Coefficient alpha reliabilities were .85 for hard work; .80 of nonleisure; .75 for independence; and .70 for asceticism. Their findings were supported in various sub-sample analyses. Also emerging from the Blau and Ryan (1997) study was an 18-item secular work ethic instrument (see Table 1). The items were selected from high loading items drawn from the seven instruments used in Furnham's work. This instrument consists of 6 hard work items, 5 non-leisure items, 3 asceticism items, and 4 independence items. Even though Blau & Ryan (1997) contended that a shorter (12-item) instrument could be formed by choosing the 3

highest loading items for each factor, this study will utilize the longer 18-item factors that emerged from their study. This instrument appears to contain the most valid items empirically derived from the seven different instruments.

Analysis. This study's analysis was a two-step process. First, the factor structure of the 18 items used to measure PWE (Blau & Ryan, 1998) was evaluated through exploratory factor analysis to replicate their procedures. This initial analysis evaluated the initial loading of the individual items on the scales. The next step was to conduct a separate confirmatory factor analysis of the work ethic instrument. A second analysis was conducted to evaluate the fit of the measurement model comprised of the scale scores and latent constructs. Input for estimation of the measurement and the structural model was provided by a covariance matrix prepared with PRELIS 2.2.

Results

Step 1: Exploratory Factor Analysis. These results indicated that the scales of hard work, asceticism, independence and non-leisure were present in the data as separate constructs. The initial exploratory factor analysis suggested five factors. However, the fifth factor was only a two-item factor representing two items that were expected to be part of the first factor. A second EFA constraining the number of factors extracted to four resulted in those items loading at acceptable levels on factor one. In this case the factor structure was identical to that found by Blau and Ryan (1987). The minor variation found in the initial EFA is within the scope of that expected by normal sample specific variations (see Table 2).

Step 2: Confirmatory Factor Analysis. Using the procedures and guidelines described above, the complete measurement model was examined. Results of the analysis of the complete measurement model indicated that all paths were significant (t-values ranged from 2.77 to 12.88). Following the Hair et al. (1998) criteria for factor loadings, this factor analysis confirmed the four hypothesized factors. Factor loadings ranged from .44 to .91, and all items loaded on the appropriate factor. The fit was considered adequate ($\chi^2=295.88(113)$, $p=.001$; GFI = .87; AGFI = .83; RMSEA=.082; SRMR=.082; NNFI = .85; CFI = .88) and superior to that of the single factor baseline model ($\chi^2=1166.76(113)$, $p=.001$; GFI = .64; AGFI = .53; RMSEA=.19; SRMR=.16; NNFI = .41; CFI = .48).

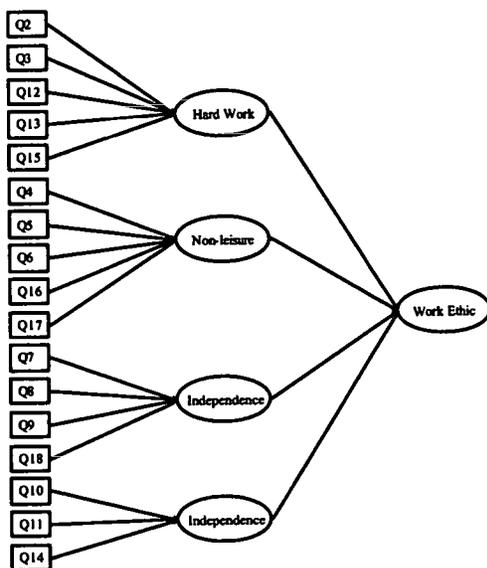
Table 1. *Exploratory Factor Analysis Results*

	Factor			
	1	2	3	4
Q15	.937			
Q16	.886			
Q14	.751			
Q116	.473	-.223		
Q117	.470	-.232		
Q113		.762		
Q13		.638		
Q112		.629		
Q12		.618		
Q115		.517		
Q18			.817	
Q19			.727	
Q118			.547	
Q17	.293		.488	
Q111				.800
Q110				.772
Q114				.645

A second confirmatory factor analysis was subsequently conducted to evaluate the fit of the four first-order factors on the latent construct work ethic. As shown in figure 1 below, the paths to the higher order factor should be significant provided the four scales do, in fact, represent one underlying work ethic construct. However, all of the paths to work ethic were non-significant and there was a negative error variance for non-leisure. This was an early indication that the work ethic construct had measurement problems. Thus, nonleisure was eliminated from the model to determine if a plausible higher order model existed for the other three components of work ethic.

Following the recommendations of Rindskopf (1984), models with this situation should be re-examined for signs of factors with either no or only large loading, or two large loadings if the factor had low correlations with other factors. Work ethic fit one of Rindskopf's categories with low loadings on all factors (hardwork = .27; independence = .18; and asceticism = .21). Based on Rindskopf's recommended strategy, work ethic would be combined with another latent construct.

Eliminating non-leisure from the model did resolve the negative error variance problem. However, it also revealed more significant problems. Specifically, none of the paths from work ethic to the first order latent variables were significant and there was a near zero squared multiple correlations for two factors (hard work, $r^2=.05$; asceticism, $r^2=.001$) indicating that almost no variance in them was explained by work ethic. Only independence had a substantial portion of variance explained by work ethic ($r^2=.65$) but the path was non-significant.



Discussion

Blau and Ryan (1997) extended Furnham's (1990a, 1990b) initial work on the work ethic construct and, through exploratory factor analysis, identified a four-factor structure of the construct. These four dimensions were hard work, nonleisure, independence, and asceticism. Blau and Ryan (1997) also advocated the use of an 18-item secular work ethic instrument. However, when subjected to confirmatory factor analysis, severe instability of the construct was detected. The scales for asceticism, independence, and nonleisure did not load on the work ethic latent construct. These findings suggest that work ethic is not a single latent construct with these four dimensions.

One possible explanation for the failure of these scales to load on the work ethic construct stems from the changing values in contemporary society. This construct, which originated with the work of Max Weber (1958), may have provided a more adequate representation of work values during earlier times. According to Weber's conceptualization of work ethic, which stemmed from Calvinistic and Quaker individualism and asceticism (Macoby, 1983), work is "performed as if it were an end in itself, a calling" (Weber, 1958, p. 62). Individuals with a strong work ethic are committed to the values of hard work and embrace the Calvinistic tradition of frugality, hard work, conservatism, and success (Weber, 1958).

Today's culture, however, does not necessarily support the same conventions and values as the culture of previous times. The history of work values is constantly changing and evolving, so the notion that the work values of 1958 would not be applicable today is consistent with historical trends. A redefinition of work values has occurred. Bernstein (1997) describes contemporary employees as "inner-directed employees who clearly place their personal wants and aspirations above those of their employers" (p. 221). Work schedules and business priorities are secondary to self-fulfillment (Sinetar, 1980). For instance, there is an increased emphasis on stress management and wellness initiatives that frequently involve leisure activities (e.g., walking, fishing, golfing, jogging, etc.). In fact, entire industries are built around filling our leisure time and, as a society, we are inundated with advertising campaigns enticing us into leisurely living. So, while the values of previous generations may have been deeply rooted in nonleisure as the norm, such is not the case in contemporary society.

Asceticism, like nonleisure, may not be representative of today's values. The term is defined as "rigorous abstention from self-indulgence" (Webster, 1986, p. 126). In the 21st century, the current emphasis is not on minimalism, but rather on materialism. Certainly, the wants and needs experienced during post-depression/post-war times differed greatly from what many of us currently express as "wants" and "needs" (e.g., motor homes,

swimming pools, luxury automobiles, etc.). Thus, the concept of asceticism may no longer be a component of the work ethic construct.

A closer examination of the concept of independence also challenges its place within the construct. Many organizations (including the one used in this study) stress teamwork as a desirable work behavior. In fact, team-building training courses are offered in countless organizations, and staff meetings consume a large percentage of many employees' workdays. Thus, independence is not necessarily the most desirable employee behavior. Therefore, its failure to load on the work ethic construct is understandable.

In light of the prevailing values, cultures and mores, it is possible for an individual to score high on the hard work scale, but low on asceticism, nonleisure, and/or independence. Compliance with the norms and values of today's society would lead an individual to respond to the instrument in a manner that would be contrary to the protestant work ethic construct which requires high scores on all four facets of the construct -- hard work, nonleisure, asceticism, and independence.

While the work ethic scale items emerged from previous first order exploratory factor analysis studies, no other known study has attempted to analyze the construct using confirmatory factor analysis of the latent work ethic construct. First order exploratory factor analysis only identifies whether the four scales are separate factors, not whether they represent one higher order construct. In this data, an exploratory factor analysis did, in fact, replicate the Blau and Ryan (1997) structure. However, this study went further by evaluating not only whether the items loaded on the respective scales, but whether the four scales represented one latent construct of work ethic.

This findings of this study suggest that the secular work ethic scale (Blau and Ryan, 1997) may no longer be an appropriate instrument to assess work in contemporary society. Despite the fact that the individual scales appear acceptable, these findings do not support the premise that these scales are representative of a single underlying work ethic construct.

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Cost Analysis of E-Learning: A Case Study of a University Program

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Due to the advantages of e-learning, more and more schools and companies are adopting e-learning and increasing their investment in it. The increased investment has brought the need to demonstrate the cost-efficiency of the investments. This study reviewed the literature related cost drivers of elearning programs and analyzed the cost-efficiency of the HRE Online program at the University of Illinois. Breakeven analysis revealed that the minimum enrollment should be twenty-three to attain the cost-efficiency.

Key words: Cost Analysis, Cost-efficiency, E-learning

In an age of severe competition and turbulent change, survival is a pivotal problem which organizations confront. Organizations have tried to find ways improving employees' performance, and training has been regarded as one of the most important strategies to solve the problem.

In addition to the accelerated importance of training, rapid development of technologies and computers has changed methods of education and training and caused the blossom of e-learning programs. The use of technology-based training and electronic training (e-learning) is one of major trends in the field of HRD (Bassi, Benson, & Cheney, 1996; Bassi & Van Buren, 1998). Various terms are being used to name these emerging training methods, i.e., asynchronous learning, distributed learning, online learning, web-based learning, computer-based training, e-learning and distance learning. Asynchronous learning focuses on the difference of time when learning occurs; online learning, web-based learning, e-learning and computer-based learning emphasize the learning technology and tools used; distance learning concentrates on the difference of places where a learner and a teacher exist. Regarding the interrelation among those terms, Urdu and Weggen (2000) identifies e-learning as a subset of distance learning, online learning as a subset of e-learning, and computer-based learning as a subset of online learning. Among those terms, e-learning is the most increasingly used concept especially in corporate setting. E-learning is defined as "the acquisition and use of knowledge distributed and facilitated primarily by electronic means (Wentling, Waight, Gallaher, Fleur, Wang, & Kanfer, 2000, p.5)." Based on this definition, e-learning would be evolved to systems consisting of a variety of channels and technologies and can take the form of courses as well as modules and smaller learning objects and may incorporate synchronous or asynchronous access and be distributed without geographical limits (Wentling, et al., 2000).

E-learning using technologies and computers to improve learner's skill and knowledge has the following advantages (Schriver & Giles, 1999; Au & Chong, 1993): space is not needed; learners do not need to wait until a class is available; learners can complete training when it is least disruptive to their schedule; and the methods can increase learner's interesting, deliver contents clearly, and feedback students easily.

Due to these advantages of e-learning, the popularity of e-learning has dramatically increased over the past few years. According to the National Center of Education Statistics, the number of enrollments in all distance education courses approximately tripled from the 1994-1995 school year to the 1997-1998 school year. About one third of all are two-year and four-year postsecondary institutions offered distance education in 1997-1998 in the U.S., and an additional twenty percent planned to start it within three years (Morgan, 2000).

The increased investment in e-learning has led companies to be concerned with the performance and efficiency of the method. That is to say, organizations are eager to know how effective e-learning is. Accordingly, organizations have increased efforts to prove whether the training intervention was successful or not, especially e-learning (Phillips, 1997).

Based on the literature related to evaluation of e-learning programs, three major factors were identified as the focus of e-learning program evaluation: cost efficiency, learner satisfaction, and learning resources. Among these issues, cost-efficiency of e-learning programs has been increasingly important because some institutions have failed due to the lack of well-thought out financial plans (Morgan, 2000). Further, chief executives are increasingly

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concerned with the impact of training on “the bottom line” (Phillips, 1997). In addition, it was revealed that trainers perceived that cost is a key barrier for successful implementation of e-learning (Xebec McGraw-Hill, 2000).

Cost-efficiency of E-learning Programs

Cost-efficiency and cost-effectiveness are two similar terms related to financial performance. Even though they have slightly differentiated meanings, they have been used without clarification. Efficiency means the ratio of output to input and effectiveness is concerned with only output. Stated differently, efficiency focuses on “how much output was obtained from the input,” that is, the quantity and effectiveness focuses on “how relevant the output is,” that is, the quality. A learning method is relatively cost-efficient in the case that its outputs cost less per unit of input and it is cost-effective if its outputs not only spend less cost than others but also are relevant to learner’ needs (Rumble, 1997). Hence, a learning method can be effective but not necessarily efficient and vice versa. Accordingly, two terms should be used cautiously and be well-defined.

From the perspective of education, when relating the financial performance of education and training, it does not mean just program costs but costs related to educational value and learner’s needs. Therefore, the cost-effectiveness rather than the cost-efficiency is more apt to mention the financial performance of education and training. However, many educators and decision-makers believe that the fact that e-learning can save costs is the major advantage of an e-learning program, because it is assumed that enhanced student enrollment would result in increased revenue and lower cost. Most decisions related to training, especially in private organizations, are based on cost-efficiency. Even though this fact does not mean that cost should be the most critical information for educational decisions, it is certain that cost efficiency is one of the crucial types of information.

The analysis of cost-efficiency of e-learning programs has three benefits (Parsons, 1995). First of all, the analysis might help trainers look at the program through the customer’s perspective. Secondly, it provides a guide to discuss the program with major stakeholders of them. Lastly, it is helpful to make a decision related to the program.

There are various methods to measure and analyze the cost-efficiency. Mostly used methods to analyze cost-efficiency are cost-to-benefit ratio (CBR), return-on-investment (ROI) (Phillips, 1994) and breakeven point analysis (Whalen & Wright, 1999)

The cost-to-benefit ratio is simply the program benefits divided by program costs. The formula is as follows:

$$\text{CBR} = \text{Program benefits} / \text{program costs}$$

Return on investment utilizes the percentage of the net program benefits over program costs. The net benefits are the program benefits minus the costs. The formula is as follows:

$$\text{ROI (\%)} = \text{Net program benefits} / \text{program costs} \times 100$$

When calculating the program benefits, it is crucial to convert various data to monetary value in order to get an accurate and credible result. Phillips (1997) suggested ten major strategies to convert data to monetary value: output data is converted to profit contribution or cost savings; cost of quality is calculated; wages and benefits are used for the value for time; historical costs; internal and external experts; external database; participants estimates; senior management provides estimates; and HRD staff estimates.

Breakeven analysis means the number of students that offset the fixed cost of the e-learning program. E-learning programs need enormous investment at the start-up stage of developing and delivering a program. Because of the high start-up and fixed costs, e-learning programs are more expensive than traditional classroom learning in the case of small enrollment (Jewett, 1998). Young (1998) summarized and synthesized eight case studies evaluating the benefits and costs of mediated instruction and distributed learning. Four out of eight studies included breakeven analysis.

There is no firm formula for determining the optimum number of students for e-learning programs (Bates, 2000; Morgan, 2000). Bates (2000) mentioned that the appropriate number of students should be determined by educational philosophy, course design, and the number of students who can be handled by the technology. Despite this difficulty, Bishop (2000) tried to determine optimum cohort size based on the cost analysis. According to the result, a cohort consisting of 25 students appeared both fiscally viable and pedagogically sound, even though the result showed a small profit with the 20 student cohort. In the case of courseware for remedial mathematics which utilizes an interactive (Cates, 1998), multimedia learning system developed by Academic Systems Corporation in order to improve the success rate of students, sufficient levels of annual enrollment that the costs of mediated learning system can be less than those of classroom course were 1,000 students per year. Another study compared the cost-efficiency of on-campus programs and multiple receive sites programs via an integrated satellite and

videoconferencing system of the Human Computer Certificate Program at Rensselaer Polytechnic Institute (Bray, 1998). Consequently, the course had a break-even enrollment of about 15 receive-site students. Whalen and Wright's study (1999), which hypothesized that there are several key design elements that should be identified as costs in the web-based training programs and analyzed a break-even point and return-on-investment, revealed that the program had a break-even number of 112 students and a ROI of 228% through 3283%. Even though a break-even point of each program is totally different, the common fact is that an e-learning program is more expensive than traditional instruction makes it important to compute. Therefore, the decision about how many students would be admitted to one cohort is important educationally as well as economically.

As stated above, breakeven point analysis provides crucial information for deciding class size. Deciding online class size is balancing between quality and budget and one of the crucial issues course designers should consider (Distance Education Report, 2000). Accordingly, this study focused on measuring the breakeven point and further suggesting an appropriate cohort size of a course in HRE Online program at the University of Illinois at Urbana-Champaign.

Questions

As indicated above, the importance of cost analysis of e-learning program is getting more important. So is that of HRE Online program at the University of Illinois at Urbana-Champaign. Accordingly, this study addressed the following questions:

1. How cost-effective is the HRE Online program?
2. What is the appropriate cohort size for HRE Online in terms of cost?

Background of the HRE Online Program

The University of Illinois at Urbana-Champaign has a rich history of technology leadership and was the home of the first web browser development that has resulted in the major growth and access of the Internet. In the mid-nineties, the University of Illinois saw an emergence of professors using the Internet within their instructional efforts. These efforts were pedestrian to today's use but they represented the growth of ideas and use. By 1997 several campus leaders decided that the university should invest in the design and delivery of online courses and programs.

The HRE Online program is entitled "Global Human Resource Development" was proposed in the Spring of 1998. The HRE department initiated this effort for several reasons. The department has a fairly sophisticated faculty in terms of technology use, with faculty using web support for most on-campus courses. The department also has several faculty who teach courses related to instructional technology and they also conduct research in this area. Consequently, there was a built-in interest in online instruction. Additionally, the HRD emphasis of the department puts faculty in contact with practitioners in the private sector who are involved with e-learning projects (the author has major research funding from the industrial partners of the National Center for Supercomputing Applications, the Office of Naval research, and the National Science Foundation). This provided for increased levels of faculty expertise as well as awareness of trends in the field.

The Department was also experiencing a growth spurt in terms of adding faculty. Consequently, capacity for new ventures was present. This increased capacity allowed for released time for development and the adding of additional online course offerings. The department had experience in delivering a master's degree in off-site locations that included Chicago, Peoria, Rockford, and Nairobi Kenya, even though these early programs were delivered face to face. Consequently, the move to an online program was attempted to meet an existing demand for a master's degree in HRD. The online approach allowed for the identification of a broader audience than ever before for off-campus programs because of the "anywhere" feature of online learning. The first cohort of fourteen students graduated in May and August of 2001. The department recruits students on an annual basis and simultaneously enrolls three cohorts of students.

This program is a degree program resulting in a Master of Education degree. The program includes nine courses. These courses are similar in content to courses taught on-campus as part of the masters program. A cohort of students is recruited every year. Students take one course per term that includes Fall, Spring, and Summer. The course length was adjusted to twelve weeks after experience with the first cohort. Campus based courses are sixteen weeks long, however, the same amount of subject matter is included in both length courses.

The department achieved a high level of support and involvement of the faculty - with nine different faculty members being involved in the masters program. The faculty were provide released time from the teaching of one

course to compensate them for the extra time involved in transforming a course to the online form. Consequently this was a cost to the department - the loss in teaching capacity for one term. However, since development/transformation was spread over a two-year period of time, it did not place an extreme strain on the department. In addition to release time, faculty were provided "development assistance" for the technical parts of course transformation. This assistance was provided by a team of graduate research assistants, who had technology experience. It is estimated that fifteen hours per week for sixteen weeks in development assistance was provided for each course. During the term that faculty actually teach or deliver a course, they are provided teaching assistant ten hours per week.

The nine courses are delivered in a combined synchronous and asynchronous form. The asynchronous delivery occurs through students receiving a streamed PowerPoint supported lecture. These lectures are usually fifteen to twenty-five minutes in length. Additionally, students are provided by learning activities that they complete either independently or as a team activity, depending on what the professor requires. Students submit their work electronically in a variety of forms and ways, according to professor's preferences. Synchronous instruction is provided through once per week session that lasts approximately one hour. This session involves all students logging onto a text chat system with each other and the professor. The professor uses live, streamed audio to talk to the students and to lead discussions

Data Collection

This study collected cost information about cohort 2 among three cohorts who are enrolling in HRE Online program at the University of Illinois at Urbana-Champaign at present and conducted the breakeven point analysis. The reason why this study focused on the cohort 2 instead of the cohort 1 which already graduated in May 2001 is that tuition of the first cohort had been underestimated and it was adjusted for the second cohort. In addition, because the second cohort will graduate in next summer, the remaining cost for this cohort can be projected accurately and easily.

As stated above, e-learning programs need enormous investment at the start-up stage of developing and delivering a program unlike a traditional program. Because of the high start-up and fixed costs, e-learning program is more expensive than traditional classroom learning in case of small enrollment below the breakeven number of learners (Jewett, 1998). Even though the start-up cost of e-learning programs has a great impact on the breakeven point, start-up costs for this program have not been considered in this study. Since funding was received from the central administration for the support of start-up and because the department contribution was in released time, it was not necessary to recover these costs and thus this information was not collected. Accordingly, the cost analysis result of this study may be shown to be more cost-efficient than that of others.

The Results of Cost Analysis of HRE Online Program

Cost-effectiveness of the HRE Online Program

Cost drivers of the HRE Online program consists of two elements - fixed costs and variable costs. Fixed costs include tech coordination salary, administrative time, secretarial support, equipment, facility, contracted server support, network support, and office communication cost. Variable costs depending on the number of courses are faculty salary, technology support staff, teaching assistance salary, course materials, and mailing costs.

In strict cost analysis using a business model it would be expected to include all costs, that is, fixed costs, variable costs, direct costs, and even indirect costs. In the university setting, however, it is typically not required to include some of the fixed costs of a program such as office rental, secretarial support, network administration and so on. This analysis included only direct costs related to operating the program such as faculty salary, TA and tech support, coordination, software and equipment updates, and office supplies. Some of fixed and indirect costs are shared with on-campus program and it is hard to exactly differentiate the portion of the on-campus program and the portion of the online program.

The program start-up was funded through a cost sharing approach between the HRE department and the University Vice President for Academic Affairs' office (VPAA). The VPAA provided a sum of \$156,000 to be spread over a two-year period. These funds were used for hiring graduate assistants for development and teaching assistance, for equipment, and for design and programming on a work for hire basis.

The department invested both direct and indirect resources in the program. The major direct cost was in the form of faculty release time. This amounted to approximately twenty-five percent of nine faculty member's time for one semester. The teaching load at HRE/UIUC is two courses per term, which accounts for 50% of ones load (50% teaching, 35% research, and 15% service). Therefore, approximately fifty-five thousand dollars in faculty time was devoted to start-up. Additionally, indirect expenses in the form of space, utilities, and some equipment were costs born by the department.

Operating or recurring costs for the program included primarily the fixed costs of faculty salary and development and teaching assistants. This accounts for three faculty per year at twenty-five percent of their salary for one term each. Graduate assistants were funded at the level of .25 FTE for technical support and .25FTE for teaching support for each of the three courses offered per year. A .25 FTE appointment for graduate students is ten hours per week. The current salary for .25 FTE Graduate Assistants is \$687 per month. Also, a full-time coordinator is employed to oversee and support the program. This person's salary is split among the three cohorts in the HRD program and another online program offered by the department. Revenue for the program is based on tuition from enrolled students. More specific information regarding revenue and income statement for one cohort was presented in Table 1 and Table 2 respectively.

Table 1. Summary of Revenue by course

	Semester	List of course	Number of students enrolled	Tuition	Total Revenue
Cohort 2	99 Fall	HRE 387 (1/2) HRE 389 (1/2)	34	848	28,882
	00 Spring	HRE 383	29	848	24,592
	00 Summer	HRE 384	20	848	16,960
	00 Fall	HRE 483	22	848	18,656
	01 Spring	Edpsy 362	21	848	17,808
	01 Summer	HRE 454	18	936	16,848
	01 Fall	HRE 450	19	936	17,784
Projected	02 Spring	HRE 457	19	936	17,784
	02 Summer	EPS 399	19	936	17,784
Total Revenue					177,098

Table 2. Pro Forma Income Statement for One Cohort

August 21, 1999 to August 20, 2002			
Revenue			
	Gross Revenue from Tuition	177,098	
	Less Waivers	31,936	
	Total Revenue		145,162
Expenses			
	Faculty Salary and Benefits	79,236	
	TA and Tech Support	51,828	
	Equipment and software updates	7,000	
	Coordination Expense	41,832	
	Others (office suppliers, phone, etc)	14,400	
	Total Direct Expenses		194,296
NET			(49,134)

The third cohort was admitted in August of 2000 and the first cohort started the program in 1998. The fourth cohort will begin in the Spring of 2002. The expectation of the Department is to run three cohorts simultaneously at all times. The first cohort paid the standard tuition rate charged to all off-campus students at the in-state rate. This amounted to \$640 per four-semester hour course. The cohort had paid the same rate through the duration of their cohort program. Before the second cohort was recruited and admitted, the department obtained approval to increase

the rate of tuition to \$848 for each four-hour course. It has been increased to \$936 to the present. Because the tuition rate for the first cohort was underestimated, this study focused on the cost-analysis for cohort 2. For cohort 2, the total revenue based on students' tuition was \$145,162 and the total costs were \$194,296. Specific costs spent were presented in Table 3.

This result shows that total cost of this program exceeds total revenue. Thus this program is hardly said to be cost-efficient at present. Revenue for the program is based on tuition from enrolled students. On the contrary, most of costs are fixed and not affected by the number of students enrolled. As more students enroll in the program, revenue increases, but total costs do not fluctuate. Making profits from this program, therefore, depends on the number of students enrolled. As seen from Table. 4, the number of enrolled students has gradually dropped out and it caused this negative result of cost-efficiency. To make this program cost-efficient, therefore, it is important to maintain the number of enrolled students over the breakeven point. The following section is focused on analyzing the optimal number of students for each course.

Table 3. Expenses for Cohort 2

	Fall 99 N=34	Spring 00 N=29	Sum 00 N=20	Fall 00 N=22	Spring 01 N=21	Sum 01 N=18	Fall 01 N=19	Spring 02 N=19	Sum 02 N=19
Faculty salary*	6,988	6,988	6,988	6,988	6,988	6,988	6,988	6,988	6,988
Benefits	1,816	1,816	1,816	1,816	1,816	1,816	1,816	1,816	1,816
TA**	2,677	2,677	2,677	2,868	2,868	2,868	3,093	3,093	3,093
Tech Support **(DA)	2,677	2,677	2,677	2,868	2,868	2,868	3,093	3,093	3,093
Coordination***	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
Benefits	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040
Administrative support	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Contracted server support	500	500	500	500	500	500	500	500	500
Others	100	100	100	100	100	100	100	100	100
Total cost	20,798	20,798	20,798	20,989	20,989	21,280	21,630	21,630	21,630
Total revenue	28,882	24,592	16,960	18,656	17,808	16,848	17,784	17,784	17,784
Net	8,084	3,794	-3,838	-2,333	-3,181	-4,332	-3,846	-3,846	-3,846

*Salary was calculated for each faculty member, summed and divided by the number of courses. This preserves the privacy of salary data.

**Based on .25FTE GRA for one semester.

***Based on salary of coordinator being split among three cohorts and another online program

Optimal Cohort Size

Based on the current amount of expenses, total costs for one cohort course are \$20,523. Based on the current tuition rate, the program begins to make profits from the point that 22 students enroll one cohort (Revenue: $22 \times \$936 = \$20,592$). Consequently, the cohort size should be kept at or above 22 who pay tuition. Since it is impossible to predict the number that will receive tuition waivers, it is important to enroll more. It is also expected that attrition will occur and this should be estimated and considered in recruiting.

This study assumed that the start-up costs would be prorated over the first five years of the program. During that period of time, the number of courses offered would be 50.

As indicated above, the start-up costs \$156,000 were funded from the University Vice President for Academic Affairs' office (VPAA) through a grant and the HRE department invested approximately fifty-five thousand dollars in faculty released time. Since a grant supported part of development, there is no need to recover that cost. However, the departments investment is of interest. When the start-up costs are divided by the average number of courses offered over the first five years (ten), the amount of money which each course should cover is about \$1,100. To earn

\$1,100 from students' tuition, approximately 1 more student needs to enroll in each course in addition to 22 paying students for breakeven. Accordingly, the optimal cohort size is 23 students with waived students above this number. The result of this study was consistent with the result of Bishop's (2000), which was concluded that the 25 students cohort option seemed to be proper in terms of both finance and education.

Discussion

When all expenses are included, the HRE Online program has not broken even since the program was launched. However, in the case of e-learning programs provided by a university, the cost-analysis does not always require faculty salaries to be included. This is especially true when existing faculty capacity is being used to cover the expenses of the program. If this analysis excludes the faculty cost, HRE Online is definitely cost-effective.

When considering the financial performance of education and training, it is to focus not on just costs but on non-costs related educational value and learner's needs. The basic question determining the financial performance is not "Does distance education cost more or less than traditional education?" but rather "Are the educational outcomes worth the cost" (Thompson, 2000). Hence, other factors are critical to the success of the program - student learning, student satisfaction, retention, and faculty satisfaction. Especially student retention is crucial factor to determine the success of e-learning program. As the number of students enrolled in the cohort 2 show, students' retention directly affects the cost-efficiency of the program and furthermore indirectly demonstrates the degree of students' satisfaction with the program. Therefore, special concern should be given to issues in relation to retention, e.g., how the program retains students and why students leave the program in addition to the cost-analysis. Related, it is important to estimate attrition when setting an enrollment goal for a program to ensure cost efficiency of the last course as well as the first. Historical retention data can provide predictive information for planning.

Additionally, a philosophy of the department which offered this e-learning program is not to view program cost information in isolation from other data. One major benefit of the e-learning program to the department is the establishment of a pipeline for its doctoral program. It is expected that some of the best e-learning students will be recruited into the on-campus Ph.D. program. Additionally, the e-learning efforts of the department generate almost \$60,000 in graduate student support for technical assistance and teaching assistance. The consequence is the ability of the department to recruit and support at least four half time assistants each year.

Examining the cost-effectiveness of e-learning programs is complicated, because the constantly emerging nature of technology makes it complex to assess accurate costs (Bishop, 2000). Also, it is difficult to analyze the cost-effectiveness across institutions because different institutions have unique background of the program development and analyze it based on different definitions of cost-effectiveness (Picciano, 2000).

How This Research Contributes to New Knowledge in HRD

Cost analysis is one of the major concerns that HRD practitioners need to consider. According to Middleton (1997), different educational sectors have different concern about the effectiveness of training and development. For instance, administrators and managers have a concern about why a given program or course is undertaken in the first place and whether or not it has been successfully accomplished. That is, overall evaluation, instructors or designers focus on teaching methods and contents, and students consider broader base of not only the test results but also their learning satisfaction. Among various concerns, the ultimate criterion the business sector uses to judge the financial performance of training is cost (Middleton, 1997). Whether a program is cost-efficient or not is crucial information for further decisions about expansion or contraction of the program. It is hard to expect the increased investment to HRD without demonstrating the financial effectiveness.

This study is meaningful in that it reminds HRD practitioners or scholars of the importance of cost analysis of e-learning programs which became a major educational form of the HRD field. This study, however, is not limited to emphasizing the importance of cost analysis of an e-learning program. This emphasized equally how unique a cost-analysis of an educational programs is. In other words, it is needless to say that cost-analysis in a business setting should include all expenses, but it is not always true in cost-analysis in educational settings. Some costs do not need to be included in the model, for instance, faculty salary. This case study provided information about which costs should be included in cost analysis of e-learning programs especially in university settings and which ones should not, how to get the breakeven point and optimal cohort size and so on. This result may influence further

decisions regarding the number of students admitted or issues related costs for this program as well as for other universities which are planning to operate e-learning programs. Furthermore, other factors should be considered to ensure the effectiveness of the program - student learning, student satisfaction, retention, and faculty satisfaction in addition to costs. These variables are being monitored in relation to financial efficiency by the e-learning evaluation system. HRD practitioners should be able to understand distinctions of cost analysis of training programs and analyze the cost in an appropriate way.

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