

## Defining Expertise across Nations: Myth or Reality of a Global Definition?

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*Knowledge acquisition and knowledge management have become central managerial themes and skills in the 21<sup>st</sup> century workplace; so has human expertise. The importance of finding and developing talented “experts” is now a requisite activity of all competitive organizations. This exploratory research investigates how the concept of expertise is defined internationally. Through the interview of 40 HRD scholars from around the globe, definitions from 15 countries are compared, and a global definition of expertise is proposed.*

Keywords: Expertise, Theory, International

From a set of humble beginnings some fifty years ago, the construct of expertise has slowly permeated the North American managerial thinking and the academic literatures of management and human resource development (HRD). Expertise was propelled as a research topic when the fields of computer science and cognitive psychology began exploring artificial intelligence and human expertise development in the mid- to late sixties. As interest in expertise grew, other areas such as education and medicine began to develop theories about knowledge and expert development. Despite this half-century of work on the topic, little empirical attention has been directed to the construct.

The absence of empirical evidence may well be the main reason of the gradual development of understanding of expertise in the last three decades (cf. Bédard & Chi, 1992). The past 15 years, however, have seen an upsurge in the pace of expertise research, as evidenced in the growing number of peer-reviewed publications in the area (Swanson & Holton, 2001). Indeed, today, the development of employee expertise has been described as a strategic imperative for ever-changing organizations in a hyper competitive economic environment. Torraco and Swanson (1995) further assert that “business success increasingly hinges on an organization’s ability to use its employees’ expertise as a factor in the shaping of its business strategy” (p. 11). Also, employee “talent” and talent management is a driving force behind human resources’ contributions to organizational success (Frank & Taylor, 2004). At senior levels of an organization, the ability to adapt and to make decisions quickly in situations of high uncertainty is critical (Chambers, Foulon, Handfield-Jones, Hankin, & Michaels, 1998). The importance of finding, developing talented “experts” is therefore a requisite activity of all competitive organizations across the world.

While there have been several efforts to define employee expertise, the definitions essentially originated from a North American perspective. However, a U.S. perspective does not represent the fields of management and human resources exclusively. As Marquardt (1999) pointed out, the world in which we live and work is becoming increasingly global. However, the majority of articles and arguments aimed towards defining expertise have one thing in common – they are written from the U.S. point of view. Nonetheless, “the definition of [human resource] terms varies from one country to another and the national differences are a crucial factor in determining the way in which HRD professionals work” (Hillion & McLean, 1997, p. 695; Okongwu, 1995; Yang & McLean, 1994). But why should human expertise be explored internationally? As McLean and McLean (2001) stated, “If we are to create a body of knowledge that is relevant to academicians and practitioners around the world, the definitions we use must be inclusive of the range of contexts that exist in the multitude of nations in which we live and work” (p. 322). Within this context we believe that it is essential not only to define HRD in the international context, but also to explore and define concepts that are relevant to HRD as a discipline. Both training and development, and organizational development, main areas of interest in HRD, rely on human expertise. Therefore, we feel that the clarification of the concept of expertise in the international context enhances the understanding of HRD as a discipline of study. HRD, as a social science that deals with human values, needs to be receptive to embracing

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concepts that truly reflect different cultural values. We believe that by providing definitions of HRD concepts that accurately reflect a global understanding, we will enhance credibility and receptiveness of the HRD field in the international arena.

## Theoretical Framework

Theoretical contributions from leading expertise and employability research have been used to conceptualize and to develop a theory of expertise and employability development from human resource management (e.g. Bratton & Gold, 1994; Hall & Goodale, 1986; Storey, 1995) and from work and organizational psychology (e.g. Arnold, Cooper, & Robertson, 1998). Little is known about the construct of expertise in other countries other than the U.S. with the exception of England. Also, the common definition used in those countries proposes that expertise has three dimensions: knowledge, problem-solving skills, and experience. International definitions of the concept of expertise in countries where the literature on the topic is sparse should allow HRD scholars and practitioners to gain a better understanding of how employee expertise is perceived in a context other than their own. With this knowledge, they should be able to better tailor their employee development or talent management programs, wherever their homeland is.

### *Definition of Expertise Based on Existing Literature*

In view of this lack of international contributions in this area, the purpose of this paper is to offer a comparison of how expertise is perceived across several continents: North America (the United States), Europe (Denmark, England, Finland, France, Germany, Ireland, Italy, Scotland, Sweden and The Netherlands), Africa (Congo), Latin America (Mexico), and Asia (China and Malaysia). Specifically, this paper explores definitions of expertise given by HRD scholars in these countries, compares them while searching for common themes, and proposes a global definition of the construct.

*North America.* What exactly is expertise in the United States? No consensus has materialized. In fact, there is disagreement about the existence of a single definition. Hoffman, Shadbolt, Burton, and Klein (1995) suggest that there are almost as many definitions of “experts” as there are researchers who study them. Some of the conceptual research studies in the United States have identified various common themes or dimensions associated with expertise, namely knowledge, experience in the field, and problem-solving skills (Swanson & Holton, 2001), as well as self-enhancement characteristics such as self-assurance, intuition, and extraversion (Germain, 2006).

*Europe.* In the Netherlands, similar theoretical and empirical controversy exists with regard to the concept of expertise (Van der Heijden, 2000). The problem of a definition is further complicated by the different qualifications in use for someone who can exhibit expert behavior or be considered an “expert” in a discipline. Some examples are: a person of genius, one who is talented, gifted, competent, prodigious, capable, excellent and proficient, to mention but a few. The divergent meanings attached to the concept of expertise create great confusion, mainly owing to the domain-specific character of expert behavior (cf: Logan, 1985; McLagan, 1997). Van der Heijde and Van der Heijden (2006) argue that occupational expertise is a prerequisite for positive career outcomes (see also Boudreau, Boswell, & Judge, 2001). It is also seen as a significant human capital factor for the vitality of organizations. Furthermore, due to the intensification of knowledge, its importance is only growing (Enders, 2002; Schein, 1996). Literature on the concept of expertise and in the field of HRD in The Netherlands is not readily available in the United States. Most of the literature on competence and expertise in that country can be found in research journals such as *Opleiding & Ontwikkeling*, in *Develop*, or in *Leren in organisaties*, all of which are published in Dutch, which could explain the paucity of Dutch contributions to the HRD literature found in the U.S.

Most other northern European countries represented in this study (Finland, Sweden, and Denmark) have similar views on the concept of expertise as the ones found in the Netherlands. These views are influenced by few articles primarily found in journals such as *Kasvatus (The Finish Journal for Adult Education Research)* and *Aikuiskasvatus (The Finnish Journal for Educational Research)*.

In England, the view of expertise is influenced by the following literature: *Creativity and the Corporate Curriculum* (Garvey & Williamson, 2002), government policy documents on competences, psychology journals such as the *Human Relations Journal*, the Atherton pyramid of expertise (Atherton, 2003), the *Journal for Managerial and Organizational Learning*, and papers on activity theory written by Yrjo Engeström (Engeström, Virkkunen, Helle, Pihlaja, & Poikela, 1996). The literature on this topic found in Ireland and Scotland is highly inspired by the British viewpoint. In Ireland, the view of expertise is also influenced by literature found on government white papers such as *The Report on the Taskforce on Lifelong Learning* (2002), and *The White Paper on Education Charting our Education Future* (1995). In Scotland the view of expertise is influenced by the work of Garavan and McGuire (2001), and by the work of Russ-Eft (1995).

In France, the definition of expertise is also unclear, and so is the difference between expertise and competence (Le Boterf, 1998a, 1998b; Zarifian, 1999). Expertise is typically defined as a more in-depth version of competence and as the capacity to organize and manage knowledge within which implicit knowledge has an essential role. Other French researchers have defined expertise as a number of activities necessary to analyze a given problem, relying on knowledge, hands-on, and on experience. Expertise should be a prompt response to a given problem. An expert is someone who is competent and who has a reputation for excellence in a particular domain. She or he may also be excellent in her or his field, be independent, and may show critical skills. She or he must know the limit of her or his knowledge, be able to discriminate her/his level of knowledge from certainty to high probability and to hypotheses. Such ability requires a certain level of self-awareness (Calenda, 2006). It is important to note, however, that the work performed by human resource practitioners at the workplace and by researchers is much affected by the French government and its laws. Indeed, the French government has recently passed a law requiring organizations to focus on validating the knowledge acquired by employees through experience (Kirsch & Savoyant, 1999). This has now become a focus of many researchers and HRD practitioners.

In Italy, the main journals of reference in this area are *Studi Organizzativi* and *Sviluppo & Organizzazione*. However, specific literature on the topic of expertise is rare.

*Africa.* In Congo (Democratic Republic of the Congo), the existence of national research journals on this topic is quasi null. Congolese researchers mainly base their knowledge on French and Belgium publications as Congo's (formerly known as Zaire) official language is French and the country was under the Belgian administration from 1908 until 1960.

*Latin America.* Similarly to the African continent, the research literature on the concept of expertise in Latin America is scarce. The only known sources of research in this area are journals such as *Gestion, Finances, The Harvard Business Review* in Spanish, and the journal *NEO*.

*Asia.* In Malaysia, there is no known research journal that publishes research on this topic. In China, however, the domains of human resource and management benefit from a proliferating creation of research journals. This being said, compared to its sister concepts such as intelligence, skill, ability, or competence, research on expertise is relatively new and undeveloped although now steadily increasing. Indeed, Chinese scholars are now borrowing and introducing Western research in the field, especially the research generated by American scholars. The existing literature shows that Chinese scholars adapt the research paradigm of "expert-novice." They agree that expertise is developed through "deliberate practice" and obey the "ten-year rule." They also use "expertise" as a new perspective and bring light to traditional research on many phenomena, such as learning and innovation (Ning & Qinglin, 2005; Zhang, 2006). Domain-specific expertise is already under investigation in sports and in research expertise (Qi & Xu, 2001), for instance. Nonetheless, there is no existing empirical research in the country. Management expertise is not quite imported yet and expertise as a research concept has not yet been explored by Chinese researchers in the field of management. Most of the existing research on expertise has primarily been conducted by scholars in the fields of psychology and education science. However, China is now on the verge of a transition from labor and resource-exhausting growth to a growth that increasingly depends on creativity and human capital. Expertise development in different domains is proved to be a key factor in this transition. Therefore, we can foresee a flourishing research agenda on the concept of expertise in the near future.

## Research Questions

The common definition used in other countries than the U.S. proposes that expertise has three dimensions: knowledge, problem-solving skills, and experience (Swanson & Holton, 2001). The goal of the first research question is to further explore the construct in other countries. Research Question 1: How does employee expertise in other countries than the U.S. compare with one another? That is, do employees perceive expertise the same way as in the U.S. where it lies upon three essential dimensions: knowledge, problem-solving skills, and experience? The purpose of this question is to establish a draft for a definition of expertise in each of these countries.

While developing a measure of expertise in the U.S., Germain (2006) found that managerial expertise could include a fourth dimension, the one of self-enhancement (with traits such as extroversion and self-assurance). We are interested in finding out if this dimension is found in other countries. Research Question 2: Does the construct of expertise include a 4<sup>th</sup> dimension, one of a behavioral nature, as Germain suggests? The purpose of this research question is to refine and / or expand the definition of the construct of employee expertise.

## **Methodology**

Since the concept of expertise in several international contexts is either unclear or inexistent, we used a qualitative, exploratory approach in order to develop explanations of the concept of expertise with minimal a priori expectations. In addition, the purpose of this study being to compare perceptions across countries and continents, the researchers decided that qualitative research was the most suitable research design for the purpose of this study. The main focus of qualitative research is the understanding of perceptions (Lincoln & Guba, 1985). Furthermore, Patton (2002) indicates that qualitative research is suitable for studies that look to explore phenomena that need more investigation. Moreover, as suggested by Creswell (1998), we selected qualitative research taking into consideration the nature of the research questions; the research questions of this study deal with how expertise is perceived in other countries. The specific type of qualitative research used here was qualitative e-mail interviewing. Meho (2006) indicated that qualitative e-mail interviews allow the researchers to “invite participation of a large or geographically dispersed sample of people” (p. 1285).

### *Sample*

To explore definitions of expertise across the globe, the authors contacted HRD scholars in 15 countries from different continents. Purposive sampling was used; the sampling strategy that used in this study was criterion sampling. All of the participants were HRD scholars, native from the countries they represented in the study. 110 leading HRD scholars, Subject Matter Experts (SME), were contacted via e-mail. E-mail addresses were retrieved from the European Human Resource Development (EHRD) network website. The EHRD website provides a directory of experts, which the portal calls the “Who’s Who in European human resource development.” HRD scholars from other continents were either known to the researchers, referred by European scholars, or were authors of research articles in human resource development. All communications were conducted in English. It is important to note that most of the respondents were fluent in English and preferred to respond to the research questions in English. Nonetheless, they were given the choice to respond in their native language or in English. Only Mexican and French respondents chose to respond in their native language. For those responses, a back-translation approach was used (Brislin, 1973; Hui & Triandis, 1985; Prieto, 1992) whereby the answers are translated into English and then retranslated into the original language for accuracy comparison.

### *Content Questions*

Using e-mail as a media, the 110 participants were asked to answer the following open-ended questions: What is your definition of expertise? What is a definition of expertise that seems most widely used or applicable in your country?

### *Data Analysis Technique*

The data were analyzed ethnographically placing emphasis on the content of the material and the culture of origin. Since the respondents were located all over the world, the data were collected via the Internet. The advantage of the technique is that it allows access to individuals who might otherwise be unavailable for face-to-face interviews or that the distance and/or finances limit the ability to interact. The other advantage is that individuals’ responses, because they are text-based, communicate with more relative precision the ideas of the interviewees. While spontaneity offers an advantage for some questions, the content questions asked of our “experts” required very specific, indeed “expert responses.” Constant comparison, the most frequent type of analysis used in qualitative studies (Boeije, 2002; Leech & Onwuegbuzie, 2006), was used to interpret the gathered data.

## **Summary of Research Findings**

A total of 40 responses were received within a two-week timeframe, representing a response rate of 44%. The breakdown of number of respondents by country is as follows: China = 1; Congo = 1; Denmark = 1; England = 15; Finland = 2; France = 3; Germany = 1; Ireland = 2; Italy = 1; Malaysia = 1; Mexico = 3; The Netherlands = 5; Scotland = 1; Sweden = 1; United States = 2. All of the participants held doctoral degrees and were employed in academe or as consultants. They had an average of 14 years experience in their field and all had a publishing record. 89% of respondents were males. The results of the individual e-mail responses were reviewed for emerging themes. From these themes conclusions were drawn. The definitions collected varied according to several dimensions, which emerged from a detailed and repeated reading and analysis of the proffered expertise. Responses provided to the two questions asked were concurrent and have therefore been merged. The similarities of the answers for Question 1 (a personal definition of expertise) and Question 2 (a definition of expertise as it is found in the research literature in the country) lead to believe that the personal interpretation of the definition of expertise is greatly influenced by the research literature. At times, since no research literature is available, the responses are based on the participants’

personal definition. Almost all definitions focused on four dimensions: knowledge, skills, experience, and domain specificity.

#### *Knowledge*

This dimension had a high frequency use by respondents. While they predominantly referred to the word “knowledge” in their definitions, one of the French participants went further and described it as “[the] capacity to organize knowledge. It includes implicit knowledge and is able to discriminate his/her level of knowledge from certainty to high probability, to hypotheses.” Only the Chinese respondent did not state that knowledge is a characteristic of expertise.

#### *Skills*

The second most cited dimension, “skills” appears to be highly descriptive of expertise. One English respondent made reference to “technical skills,” which would lead to believe that to him or her, expertise is not entirely an abstract concept. While this dimension was highly cited, it is also the broadest in term of possible meaning of the type of skill required. While most participants stayed vague as to what skills are needed to be considered an expert, some referred to “problem-solving” skills (U.S. and Italy). One English scholar spoke of “specialized skills” and a French one mentioned that an expert is to “show critical [thinking] skills.” Clearly, the term skill was used very loosely in this study.

#### *Experience*

The third most cited dimension by the respondents was “experience,” which plays a large part in the concept of expertise. “Normally expertise is build up of skills and competences and experience” (The Netherlands). The participants mostly cited the words “has experience.” Both one Dutch and the Chinese respondents made reference to the dichotomy expert vs. novice: “To me the word expertise brings to mind the distinction between the level of competence of a novice and a more experienced person” (The Netherlands). Another Dutch respondent further explained that it is experience in the context of learning (“continuous experiential and academic learning”).

#### *Domain Specific*

From “specific field” (Denmark and England) to “relating to a specific issue” (Congo), or “mastery of one area” (Ireland), respondents from all continents affirmed that expertise is domain specific. Ireland further asserted that expertise could also be a “broad spectrum of knowledge.”

Three out of the five Dutch participants were extensive in their explanation of domain specificity. Indeed, for the Dutch respondent 1, “experts are the persons who operate in the top of a knowledge domain” while the Dutch respondent 2 was more generic by asserting that “knowledge and skills in a restricted domain /area.” Respondent 3 was more specific in terms of the possible domains: “Expertise is different pertaining different target groups (psychologists), medical expertise, citizens, professional expertise, etc. But some people do have a great expertise in wine making and wines; almost in every area expertise is possible as a great or high knowledge (cognition) in a certain domain.” On the other hand, the Dutch respondent 4 framed the domain to a specific job (“The capacity and motivation to operate adequately in the context of one's profession”).

Although other themes emerged from the participants’ responses, they were not extensively elaborated. Some characteristics of expertise were only mentioned once, which is the case of “trust” (England), “quality” (England), “thinking patterns” (The Netherlands), and the fact that expertise “has a political dimension” (England). Other characteristics of expertise highlighted by the participants included having “automatized routines, “thinking patterns,” and the idea that an expert can “teach and guide a novice towards more expertise.” One Dutch respondent saw experts as “the persons with a helicopter view, the ones that are asked for advise when important and difficult decisions have to be made.” Another Dutch respondent suggested that experts have a set of “attitudes and behaviors,” a definition that parallels the one suggested by Germain (2006). Also, the majority of contributors did not specifically define the amount of knowledge needed, the length of experience needed (with the exception of the Chinese respondent who referred to the “ten-year rule”), and the type of skills required, as previously noted.

Based on those findings, research question 1 (How does employee expertise in other countries than the U.S. compare with one another?) is supported and research question 2 (Does the construct of expertise include a fourth dimension, one of a behavioral nature?) is partially supported.

## **Discussion and Applications to the HRD Field**

Per our respondents, the word expertise in their ordinary language is defined specifically. For instance, expertise in the Dutch language is “deskundigheid.” A typical Dutch dictionary would define the word as the quality of being able to perform; a quality that permits or facilitates achievement or accomplishment. It is also defined as the quality of being adequately or well qualified physically and intellectually.

The definitions offered by our respondents are substantively more specific and similar to definitions found in the current literature in the field in the United States. Indeed, Swanson and Holton (2001) define expertise as a “displayed behavior within a specialized domain and / or related domain in the form of consistently demonstrated actions of an individual that are both optimally efficient in their execution and effective in their results” (p. 241). Their hypothesized dimensions of expertise include problem-solving skills, experience, and knowledge. Swanson and Holton consider the concept to be dynamic and domain-specific. To them, human expertise is the ability to do consistently the right thing in the right way, a definition which also concurs with the one provided by Kuchinke (1997). Moreover, Kuchinke suggests that expertise functions as a value judgment. Both of those definitions were shared by some of our respondents. As one Dutch respondent asserts, “I do not see that the Netherlands is different in this respect to other countries.” A few of the Dutch scholars also noted that the definition used in The Netherlands “follow the work of Robert Sternberg and the earlier work of Robert Glaser” (who both conduct research in North America) and is very inspired by other European researchers. As one said, “In Europe Michel Eraut (U.K.) and Per Erik Ellström (Sweden), Franz Weinert (Munich, Germany) seem to me excellent experts in this field.”

The main divergence between the overall definition provided by our foreign respondents and the one found in the United States might be the one of “skills.” Indeed, Swanson and Holton (2001) specifically make reference to “problem-solving” skills while Germain (2006) broadens the term “skills” to include judgment, intuition and deduction. It appears that the “skills” mentioned by the respondents might fall in between Swanson and Holton’s and Germain’s definition of expertise.

Another interesting finding is that most definitions provided by our scholars focused on the individuals and not on the organizations. HRD, with its focus on humans, is heavily influenced by the context in which it is studied and practiced (McLean & McLean, 2001). By definition, context is determined in part by culture, which varies from country to country and organization to organization. However, the definitions provided referred to U.S. definitions of expertise. This could be explained by the fact that some definitions may have been taken directly from the U.S. literature, translated, and then used in another context. This makes sense since many researchers are fluent in English, and the North American literature is more permeable in universities in England, China, and The Netherlands. For instance, Utrecht University’s library (in the Netherlands) has online access to the Human Resource Development Quarterly journal and most libraries in Europe and China have online access to several other English-speaking journals in the field.

It is essential to note that some countries clearly set themselves apart from these four dimensions. For instance, a quarter of the English participants focused on the personal characteristics of experts: “sufficient [e]steem, talent, emotionally committed, [and] value loaded.” Others thought that education plays a large role in the definition of expertise: “[experts have a] secondary or tertiary education” (Finland), “academic” (Germany), “academic knowledge” (The Netherlands), “academic certification” (Sweden), “[and are] scholar[s]” (Mexico). Interestingly, those are countries where education is considered important to personal success. On the other hand, the participant from the Democratic Republic of the Congo clearly stated the opposite: “[an expert] is not necessarily highly educated or trained.” Finally, many European respondents made a clear link between the concept of competence and the one of expertise while refining it. For them, expertise is “a mastery level of competence” (England), “a high or superior competence” (Finland), “[or an] in-depth version of competence” (France). This further confirms that research question 2 (Does the construct of expertise include a fourth dimension, one of a behavioral nature?) is partially supported.

#### *Towards a Global Definition of Expertise*

In view of the resulting themes and the propensity of certain countries to converge towards themes that are similarly found in the U.S. literature, we propose a global definition that partially reflects the one found in the U.S.: “Expertise is the combination of knowledge, experience, and skills held by a person in a specific domain.” Again, because the term “skill” appears to mean different things to different respondents, it is in need of further exploration. Based on the respondents’ feedback, skills may include critical and problem-solving skills.

The findings of this study are useful to the field of HRD. Indeed, since expertise has been linked to performance (Bereiter & Scardamalia, 1993; Swanson & Holton, 2001), a better understanding of what makes an expert in a particular country can help HRD professionals design interventions and training for employees so to improve their practice and reach standards of expertise similar to the ones in other offices. Performance may hence become consistent across the globe. Finally, the findings shed light on cultural differences and how they can affect work.

#### **Limitations of the Study**

These findings are a preliminary step to further research. One major limitation being the use of “experts” to describe “expertise,” future research should include lay people. Secondly, the mode of communication being English, the results may have been hindered by possible translation difficulties on the part of the participants whose first language was not English. Thirdly, despite the advantages of virtual ethnography, it is important that there is a balance of this technique with traditional interviewing techniques to gather the subtleties offered in non-verbal communication. Fourthly, the research is deeply embedded in one field. Future research should attempt to gather experts from multiple disciplines to adequately assess the phenomenon without a discipline bias. Also, the rather small sample size underrepresented some countries such as Africa, Australia, Canada, and China. This goes in par with the fact that HRD research in those countries is underrepresented in general. Finally, future research should develop appropriate and valid measures of expertise perception to begin quantitative and qualitative assessments.

## Conclusion and Implications for Human Resource Development

Future research should further investigate the concept of expertise internationally and attempt to explain the similarities to the U.S. when, in fact, culture affects the way organizations function and the people within it. As organizations increasingly expand worldwide, understanding expertise across nations could provide insights into selection and hiring procedures, cross-cultural training, or even be used as a performance measure by identifying individuals (expatriates or foreign workers for instance) that may or may not possess expert-like skills and to develop them for optimal performance. Above all, in addition to expanding Human Resource Development as a field, international perspectives may help gain new insights and move us beyond our own ethnocentrism.

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