

Exploring the Competency of Academic Library Staff Engaging in Emerging Services*

Yeni Ortaya Çıkan Hizmetlerde Akademik Kütüphane Personelinin Yeterliklerinin Araştırılması

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Abstract: *The basic capacity of library and information professionals is reexamined from two viewpoints. First, capacity is reshaped through emerging knowledge and skills under new information environments. Second, it is examined with more attention to the capability of high attainment of outcomes, i.e. 'competency', the core personality factors which predict job performance.*

This study focuses on 'competency' rather than knowledge and skill. In order to explore what competencies library and information professionals possess and utilize, the Behavioral Event Interview (BEI) has been administered to library staff (assistant librarians through section chiefs of libraries). Its transcript analysis confirms that interpersonal and motivational competencies are easily observable and rather dominant among three categories of competency. However the other category, (cognitive/intellectual competencies) was also identified through complementary application of the Higher Education Role Analysis (HERA) instrument. And finally the study looks at how staff assess the required 'knowledge and experience' in their jobs and addresses the question of how knowledge (knowledge and skill) and core-personality (motive, traits and self-concept) competencies interact.

Keywords: *Competency for library and information professionals, academic library, Behavioral Event Interview, Higher Education Role Analysis*

Öz: *Kütüphane ve bilgi profesyonellerinin temel kapasiteleri iki bakış açısıyla yeniden incelenir. İlki, kapasite yeni bilgi çevrelerinde yeni ortaya çıkan bilgi ve becerilerle yeniden şekillenir. İkincisi, yüksek çıktılara ulaşma yeteneği, yani iş performansını tahmin etmeye yarayan temel kişilik faktörleri - uzmanlık (kompetanlık)- daha fazla dikkatle incelenmektedir.*

Bu araştırma bilgi ve beceriden çok 'yeterlik' üzerine odaklanmaktadır. Kütüphane ve bilgi profesyonellerinin hangi yeterliklere sahip olmaları ve bunları kullanmaları gerektiğini araştırmak için kütüphane personeline (yardımcı kütüphanecilerden şeflere kadar) Davranışsal Olay Görüşmesi (BEA) ölçeği uygulandı. Transkript analizi kişiler arası ve motivasyonel yeterliklerin kolayca gözlenebildiğini ve üç yeterlik kategorisi arasında baskın olduklarını doğrulamaktadır. Ama tamamlayıcı uygulama olarak Yükseköğretim Rol Analizi (HERA) aracı kullanılarak diğer kategori (bilişsel/entellektüel yeterlikler) de saptandı. Ve son olarak araştırmada personelin işlerindeki "bilgi ve deneyim"i nasıl değerlendirdikleri incelendi ve bilgi (bilgi ve beceri) ile temel kişilik yeterliklerinin (güdü, değerler ve kendilik algısı) nasıl etkileştikleri üzerinde duruldu.

Anahtar sözcükler: *Kütüphane ve bilgi profesyonelleri için yeterlik, akademik kütüphane, Davranışsal Olay Görüşmesi, Yükseköğretim Rol Analizi*

Introduction

The knowledge and skills required of library and information professionals are changing. *Body of Professional Knowledge* published by CILIP (Chartered Institute of Library and Information Professionals) in 2004, is a typical reframed system of competencies showing 'core schema', 'applications environment' and 'generic and transferable skills'. But its perspective is confined to knowledge base. Different approaches (Marshall, 1996; McNeil & Giesecke, 2001)

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appeared as early as 1997 and seem to offer a more extensive view. They refer to ‘competency’, identified by McClelland (1973) as the underlying characteristics for “criterion-referenced effective and/or superior performance” in a job. Typically, however, these kinds of efforts have been derived not from an empirical approach, but from conceptual considerations in professional forums over the years (Abels, Jones, Latham, Magnoni, & Marshall 2003). Most were published in order to explore a new professional identity or various practical criteria in organizational assessment and staff training (Soutter, 2007). In a revised edition of *Competencies for Information Professionals of the 21st Century*, SLA (Special Library Association) (Abels et al., 2003), claimed to base these competencies on ‘best practice’ evidence though, its investigation has not been disclosed and evidence is not adequately confirmed. In addition the competency concept itself is rather ambiguous because it covers a wide range from inner traits of people to comprehensive professional knowledge and skills. For these reasons, in spite of their effort to be representative, the documents are an abstract expression and understanding them in working contexts is quite arduous.

This study aims to examine what competencies library and information professionals need, and how these competencies contribute to conducting their job activities. It focuses on the “personal competencies” [representing a set of attitudes, skills and values that enable practitioners to work effectively] rather than “professional competencies” [relating to the practitioner’s knowledge of information source, access, technology and management] described in the SLA document (Abels et al., 2003). This approach has not obtained mass appeal in the library world up to now, as discovered in the review of the literature on competency and definition of the concept.

On the premise of taking an empirical approach to understanding the characteristic of ‘competency’, this study employs McClelland’s Behavioral Event Interview (BEI). The author visited five universities from 2007 to 2008 to interview library staffs. Transcript analyses of the interviews followed to pick up staffs’ opinions of their jobs. Analyses were based on the methodology developed by Lyle M. Spencer, Jr. and Signe M. Spencer’s (Spencer & Spencer, 1993; Getha-Taylor, 2007). Moreover this study adopts quantitative surveys and statistical verification as well.

This is a study to explore required competencies in human resource management of library and information professionals.

Exploring Competency

Competency is an individual’s underlying characteristics indicating their way of behaving and thinking. There are five types of competency characteristics: motives, traits, self-concept, knowledge and skill. These are also divided into two kinds; ‘*threshold competencies*’ (usually knowledge and skills) and ‘*differentiating competencies*’ (factors which distinguish superior from average performers) (Spencer & Spencer, 1993, p. 9-11, 15). As a matter of first priority the *threshold competencies*, knowledge and skills, have received most attention so far. In recent decades people have been occupied with examining new types of *threshold competencies* because information and communication technologies have radically changed the workflows in libraries. As a consequence, the required competencies for library and information professional jobs had to be updated.

Research has considered competencies for library and information professionals. Nagata et al. (2006) conducted 23 focus group interviews and a national survey of Japanese academic librarians from 2003 to 2005. Fifty-two items of knowledge and skills including emerging information and communication technologies were examined. Knowledge and skills pertaining to the services and communication were paid more attention than in a previous survey (Miura, Kikuchi, Mori, & Horikawa, 1991). The research suggested that we should focus on staff attitudes and look at competency as a whole.

This study questions the *differentiating competencies*. Although knowledge and skills are quite easy to examine, the *differentiating competencies* are not. In order to factor out the core motives and traits this study has employed the Behavioral Event Interview (BEI) as a methodology. BEI is a structured interview that identifies people’s recognition, actions and achievements in the job process in order to focus on the performance effectiveness of individuals. It gives “data about the interviewees’ personality and cognitive style (e.g., what they think about, feel, and want to accomplish in dealing with the situation)” (Spencer & Spencer, 1993, p. 98).

R.E. Boyatzis (1982), who superseded McClelland’s work, reviewed the competencies of superior managers across organizations using the BEI transcripts and presented a set of competencies of managers in 1981. Along with this attempt Spencer & Spencer looked at competencies found in reports of more than 200 diverse jobs. Those reports contain clusters of distinguished competencies, namely characteristics of superior performers identified by BEI studies. And such competencies are shown in narrative definition with “specified behavioral ways of demonstrating the competency in the job”. Spencer & Spencer examined them based on behavioral indicators (“lowest common denominator, or smallest unit of observation directly comparable across all models”) and made up a list of approximately 769 behavioral indicators. Then finally 360 behavior indicators were extracted as items of a preliminary dictionary (Spencer & Spencer, 1993, 19-20).

“The competency dictionary presents competencies in generic form, in scales designed to cover behavior in a wide range of jobs” (Spencer & Spencer, 1993, p. 23) which is comprised of 19 cluster concepts (Achievement Orientation; Concern for Order, Quality, and Accuracy; Initiative; Information Seeking; Interpersonal Understanding; Customer Service Orientation; Impact and Influence; Organizational Awareness; Relationship Building; Developing Others; Directiveness [Assertiveness and Use of Positional Power]; Teamwork and Cooperation; Team Leadership; Analytical Thinking; Conceptual Thinking; Technical/Professional/Managerial Expertise; Self-Control; Self-Confidence; Flexibility). The cluster concept represents the underlying intent to cope with the situation (Spencer & Spencer, 1993, p. 22, 25-85) and provides a basic unit for setting an individual job competency model. Table 1 shows the competency model for technical professionals whose work involves “the use of technical knowledge”. As far as library and information professionals are concerned with tasks of technical processing they can be seen to belong to this group. The weight in the left column refers to the “relative frequency with which each competency distinguishes superior from average performers” (Spencer & Spencer, 1993, p. 163). According to this table, technical professionals seem to be more concerned with their achievement and capabilities to realize their aims than with attention to customers.

Table 1. Spencer & Spencer’s generic competency model for technical professionals

Weight	Competency clusters
6	Achievement Orientation
5	Impact and Influence
4	Conceptual Thinking; Analytical thinking; Initiatives
3	Self-Confidence; Interpersonal Understanding
2	Concern for Order; Information-Seeking; Teamwork and Cooperation; Expertise
1	Customer Service Orientation

Behavioral Event Interview (BEI)

Samples for BEI

From January 2007 to February 2008 the author interviewed 27 library staff at five very vigorously active university libraries in Japan. As summarized in Table 2, twelve of the participating staff are assessed as superior performers by their managers based on their contribution to the organization, seven are average performers and eight are managers. Managers were interviewed whenever possible, since their opinions are adopted to judge the staff.

The superior performers are working at middle level positions and their ages range from late 20s to 40s. Gender ratio is almost the same, with a few more females than males. These performers are mostly engaged in emerging services, e.g. institutional repository management, user interface production of library information services, customer service for digitized materials, organizing digital materials, and information literacy education.

Each BEI took about an hour to conduct, and was recorded by a digital IC (integrated circuit) recorder. The question topics mostly covered the job success and failure stories with the introduction of job details. The transcripts of the interviews were then prepared for analysis.

Table 2. Categories of library staff interviewed by the BEI

	<i>BEI</i>		<i>Managers</i>
	<i>Superior performers</i>	<i>Average performers</i>	
<i>A Library</i>	2	2	3
<i>B Library</i>	2	2	
<i>C Library</i>	2		1
<i>D Library</i>	4	1	3
<i>E Library</i>	2	2	1
Total	12	7	8

Findings from BEI

The transcripts of interviews were analyzed within the scope of Spencer & Spencer’s specification. To do thematic analysis to identify themes and patterns, phrases relating to ‘Situation’, ‘Who is involved’, ‘Thoughts’, ‘Motivation’, ‘Feelings’, ‘Actions’, ‘Outcomes’, ‘Other characteristics (Physical appearance and so on)’ were extracted (Spencer & Spencer, 1993, p 137-141). Figure 1 shows some examples illustrating the themes of ‘Situation,’ ‘Who is involved’ and

‘Motivation’. These are statements differentiating superior from average performers.

<p>1 状況(Situation)</p> <p>1-1 利用者ってやっぱり、知らないっていうか、せつかく、こんなにいいものがあるのに、使いこなせてないですし、すごく高いお金で買っているいろんなもの図書館にあるんですよね。それを、なんか、やっぱりつないで、つなぐ仕事っていうのが、それをつなぐ仕事っていうのは私たちしかないんですよね。(状況と役割の認識)</p> <p>Translation: 1-1 Users do not know library collections so much; actually they cannot utilize such fantastic goods. Our library has paid lots of money to collect wide variety of materials. It is only we that link users to those collections. (Recognition of role)</p> <p>1-2 やっぱり、分業っていう意識が大きいので。なるべく自分では、もちろんやっている仕事は、一部分なんですけど、なるべく全体を見たいなと思いつつながら、ええ、ひそかに、ああ、ここはこうだといいなと思いつつながら、なんかのときには、発言したり行動したり、っていうことをしたほうがいいのかと思います。わりあいすぐ上の上司には、たぶん私はいわゆるほうだと思いつつ、いつてどうなるという、あれじゃないんですけど、とりあえず、いつてこうかな、という気持ちはあります。」(組織状況の把握)</p> <p>Translation: 1-2 We run our business on the basis of division of labor. My work is a part of it, however I would like to look at it holistically. And it might be better for me to mention issues and get in action when necessary. My superior takes me for a valuable person. I think I should speak out, but don't expect the result of it. (Understanding of organization context)</p> <p>2 関係者(Who is involved)</p> <p>2-1 その、なんか、自分がやっていることが、周りの人に知ってもらえたり反応があったりで、それで、その人たちとコミュニケーションを取っているうちに、自分自身の考えがこう、まあやっつてることがその、少しずつ、洗練、とかいう話、そこまではないかもですけど、幅広くなる、っていう部分があるのかな、と。(同僚の存在)</p> <p>Translation: 2-1 Let me think, once I have a reaction toward my work from the people around. And I have kept in touch with them about my work, and then owing to communication with them I was able to hit on the idea of sophisticating, enlarging, widening my concept, in other words what I am tackling. It is not clear, though. (Development with colleagues)</p> <p>2-2 あの、…なんていうのかな、自分はただ純粋にやっているんだっていうところをみせることで、まあ、だんだん、ひとつふたつやっつてると、みんながあの人だったらつくってくれるんじゃない、みたいな感じに、雰囲気になってきた。(同僚からの目)</p> <p>Translation: 2-2 Well, how can I say? That I was doing my sheer volume of work and obtaining results was appealing until my colleagues change their attitude and started singing another tune about me. They now think that he(I) will deliver it for them. (Collegiality)</p> <p>2-3 やっぱりその、そこで何人かのコミュニティをつくって、ぐーっと引っ張って行って、そこに、その、もしそれがよいものであれば、そこにこう、周りに、ユーザとかですかね、そこに賛同する人が集まる、みたいな。結局そういうことなのかな、と思つて。自分1人でやっつてることが負担じゃないっていうのは、あ、どこもそうなのね、っていうところがみえてきた。(仲間の広がり)</p> <p>Translation: 2-3 All in all, I try to make a circle of colleagues, and lead them aggressively to an objective. If it is OK with others, it has been possible to collect the advocates around me. In effect I realized I am not the only one who took it on. (Peer identity)</p> <p>4. モティベーション(Motivation)</p> <p>4-1 だから絶対成功する、っていう思いでやっつて。 (中略) 失敗したら、後がないわけじゃないんですけど、失敗するよなもの絶対つくらない、という思いで。だからツメを大事にしてきている。まあ、人からいわせれば細かすぎる、というのはあるんですけど。(達成の重視)</p> <p>Translation: 4-1 I have tackled it with strong confidence to make it. *snip* Even though it failed I still have chances to recover, but I am filled with a conviction that I won't fail. I think a great deal about ending of each task. Maybe I worry too much about details. (Achievement-centered)</p> <p>4-2 たぶんひとつに理由を集約するなら、その、プロ意識。自分の思い描いている図書館員ってどんなだろう、やっぱり、外国人がきてもちろんと対応したいよね、っていう。だから、[語学研修は] 自分の場合海外旅行に行くためではなかった。(仕事の達成)</p> <p>Translation: 4-2 Perhaps, speaking with one voice, it is a kind of professionalism. What kind of librarian should I be? When encountering the foreign customer, I would like to render a proper service. So language program is a must for my job, not for oversea trip on holidays. (Job Attainment)</p>
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Figure 1. Part of BEI transcript analysis

Each additional phrase within parentheses in the end is the author's annotation. Checking the competencies of interviewees, the phrases were then categorized into three general categories; 1) Cognitive/Intellectual competencies ("skills involved in creating, getting, or using information; learning from experience; objectively analyzing data; or thinking through alternatives for action, logical thought, and divergent thinking"), 2) Interpersonal competencies ("skills

involved in communicating with, understanding and influencing others, such as accurate empathy, positive regards and expectations, articulateness and public speaking ability”), 3) Motivation competencies (“the needs or drives that cause people to want and do different things; achievement, affiliation, and power motives; and emotional self-control”) (Spencer & Spencer, 1993, p. 141-142). From these examined transcripts vocabularies for competency of the library and information staff emerged.

The examples in Figure 1 can be classified exclusively into three categories, 1) Cognitive/Intellectual competencies [illustrated by 1-1], 2) Interpersonal competencies [by 1-2, 2-1, 2-2 and 2-3], and 3) Motivation competencies [by 4-1 and 4-2]. Findings reveal that superior performers certainly talk about their competencies to communicate with colleagues and the occurrence of interpersonal relationships is rather high among them. It is quite understandable for them to focus on the interpersonal relationships with intent to perform their tasks with felicity in their organization and know how to express themselves to others. Of course they have highly motivated attitudes which are also frequently found in the transcripts. Evidence among superior performers for cognitive/intellectual competencies however is less apparent in their direct statements.

Complementary Survey

HERA as a Job Analysis Methodology

HERA (Higher Education Role Analysis) was designed and developed as the job evaluation scheme by Educational Competencies Consortium Ltd. (HERA, 2010). Universities in the UK introduced it as one of the measures of job analysis for the reform of pay structures. Many institutions now use HERA to assess jobs and rank all kinds of posts into one salary scale. In using the HERA, trained role analysts interview persons who gave a reply to the questionnaire about their job. They evaluate jobs by checking the scored evidence of role requirements in responses to the questionnaire. So first staff have to answer the questionnaire which consists of 14 elements from ‘Communication’ to ‘Knowledge and Experience’ shown in Table 3. Each element has a series of 50 questions which draw out evidence for what roles are required of the positions. This study’s concern is limited to staff answers to certain questions, and does not extend to the scoring and ranking procedure by analysts.

Table 3. HERA’s 14 elements

1) Communication (covers communication through written, electronic or visual means and oral communication, formally and informally)
2) Teamwork and Motivation (cover team work and team leadership when working in both internal and external teams)
3) Liaison and Networking (cover liaising with others both within and outside the university and creating networks of useful contacts)
4) Service Delivery (covers the provision of help and assistance to a high standard of service to students, visitors, members of staff and other users of the university)
5) Decision Making Processes and Outcomes (cover the impact of decisions within the institutions and externally)
6) Planning and Organising Resources (cover organising, prioritising and planning time and resources, be they human, physical or financial)
7) Initiative and Problem Solving (cover identifying or developing options and selecting solutions to problems which occur in the role)
8) Analysis and Research (cover investigating issues, analyzing information and carrying out research)
9) Sensory and Physical Demands (cover the sensory and physical aspects of the role required to complete tasks)
10) Work Environment (covers the impact the working environment has on the individual and their ability to respond to and control that environment safely)
11) Pastoral Care and Welfare (cover the welfare and well being of students and staff within the institution in both formal and informal situations)
12) Team Development (covers the development of the skills and knowledge of others in the work team)
13) Teaching and Learning Support (cover the development of the skills and knowledge of students and others who are not part of the work team)
14) Knowledge and Experience (cover the relevant knowledge needed to carry out the role, however acquired, whether this is technical, professional or specialist)

The HERA questionnaire sets a generic perspective to analyze jobs rather than looking into specific requirements of professional knowledge and skills. It covers all areas of competency employed in various positions in higher education institutions. So it can be hypothesized that staff answers could show significant differences in job interpretation between the superior and average performers to a certain extent if comparing the answers of those who are engaging in same or similar tasks. In fact HERA includes two types of questions aimed to show the divergence due to the respondents’ opinion

or way of thinking. One type includes the questions covering a wide scope of issues, namely ‘14) Knowledge Experience’ and ‘13) Teaching and Learning Support.’ The other type includes the questions which need some consideration and judgment when answering them, such as those under groupings of ‘5) Decision Making Processes and Outcomes’, and ‘7) Initiative and Problem Solving’. This study has employed this part of the HERA as a complementary instrument to check staff interpretation of their job role in their library. Incidentally HERA has also enough elements to illustrate the role of interpersonal activities including the channel (written, electronic and visual, oral) and ways (liaison, networking and teambuilding) of communication, which, however, are not used here. The sample population for conducting the HERA survey is the same as used for the interview shown in Table 2 (excluding managers).

Some Features of Superior Performers Extracted by the HERA

Several characteristics of superior performers were identified from responses to the HERA questionnaire. One example is found in responses to the HERA question 30, illustrated in Figure 2. This question asks whether the respondent is “required to resolve problems where there is a lack of precedent which calls for innovation and creative thought to develop appropriate options; anticipate problems and make projections; initiate solutions which do not limit future choices,” namely how to handle contingent situations. Naturally the staff needs cognitive/intellectual competencies as well as good motivation competencies to cope with such situations. This type of question is a way to uncover how well the cognitive/intellectual competency is possessed by role holders.

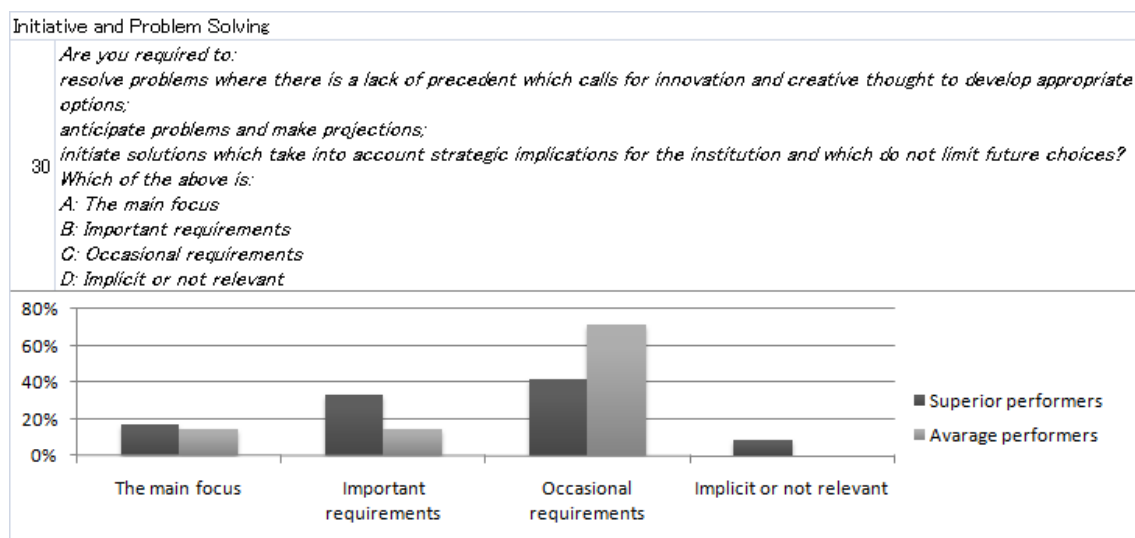


Figure 2. Comparison 1. Requirement level of problem solving

As a result fifty percent of superior performers chose ‘The main focus’ or ‘Important requirement’ toward the question. On the contrary, seventy-one percent of average performers picked ‘occasional requirements’. Certain differences between superior and average performers’ responses are quite visible. Half of the superior performers seem to have a more active self-perception to tackle contingencies; on the other hand a majority of average performers may be reluctant to identify themselves as doing so. Superior performers can be recognized by their response to take a positive position with some competencies. However, converting each option of A through D into 1, 2, 3, 4 respectively, the result of an independent sample t-test of mean values does not show a statistically significant difference in responses between superior performers and average performers ($p=.71 > 0.05$, the difference of mean: .155, Variance: .708). Maybe the implication of this question is too broad or the sample size is too small to identify a clear statistical difference.

Figure 3 shows the responses to HERA question 47 inquiring whether the respondent is “required to teach or train students or others on specific tasks, issues or activities; assess performance and provide feedback during the event.” This question relates to how to develop the person who is not a colleague. This task may be recognized as ‘user education.’ It is a comparatively new area among library and information professional duties, so positively answering some questions poses a kind of challenge (A: Does the role holder develop innovative approaches to the learning experience and the curriculum; originate content and methodology? and B: Does the role holder design content or learning materials within existing frameworks; make appropriate modifications to existing materials on the basis of the knowledge or experience of the learner(s)?). Average performers responses are formulaic or ‘not relevant’.

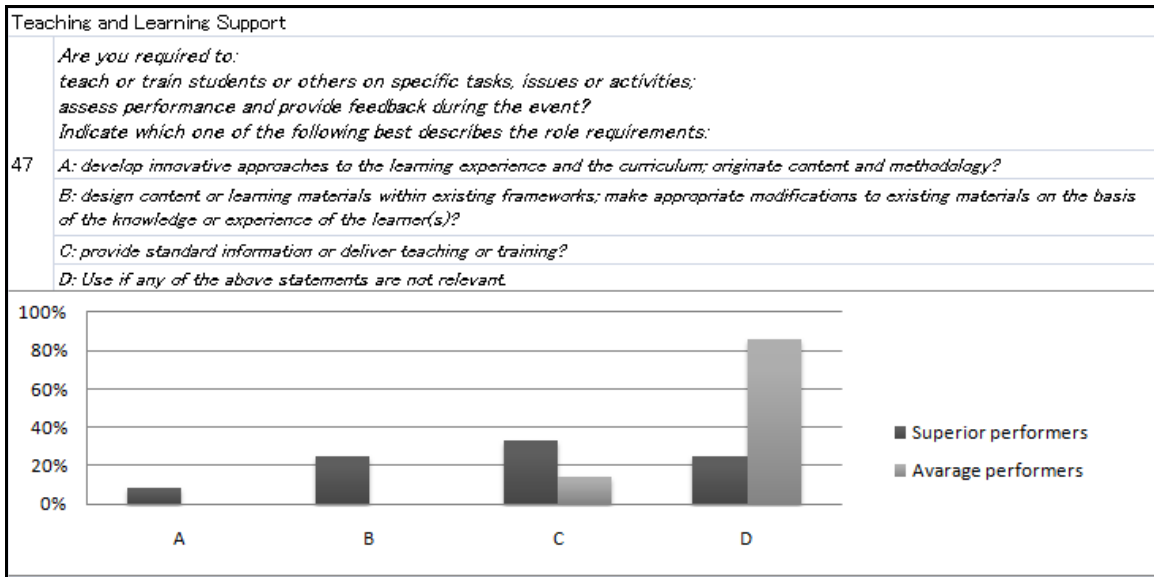


Figure 3. Comparison 2. Solutions based on knowledge and skills

Question 47 shares the same issues with question 30. Obviously the characteristics which these questions uncover are oriented to the cognitive/intellectual competencies as well as motivation competencies. But the role of this question is to clearly articulate the different attitude of average and superior performers. The gap between the two types of performers is easily sizeable as shown in Figure 3. And statistical analysis (independent sample t-test of mean values) also shows a significant difference between superior performers and average performers ($p=0.017<0.05$).

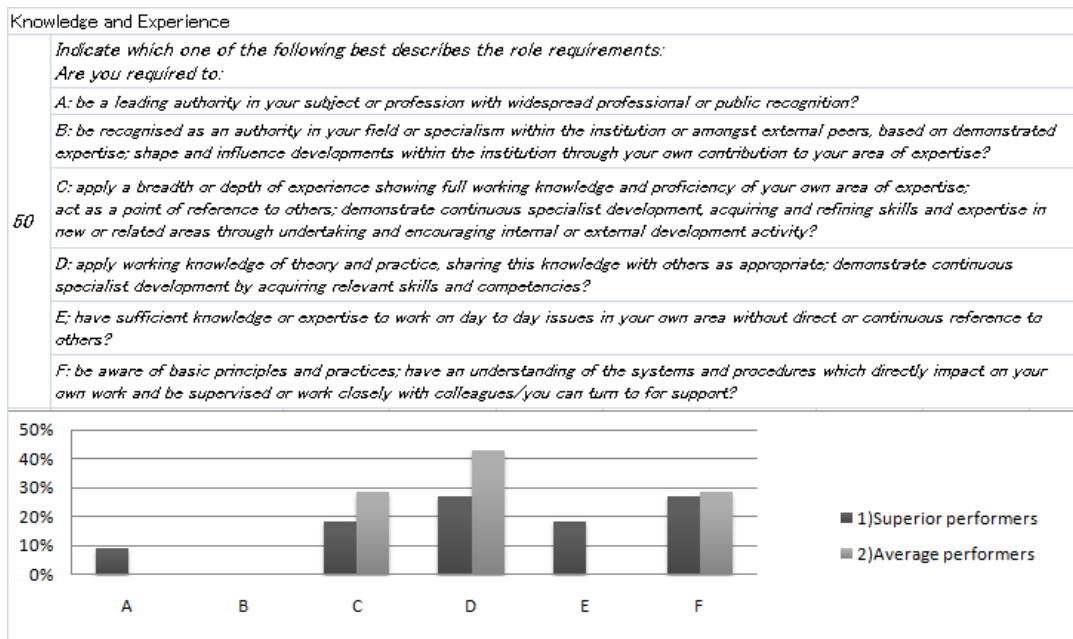


Figure 4. Comparison 3. Evaluation on knowledge and skills

Finally it might be worthwhile to look at how necessary library staffs think their knowledge and skills are to performing their jobs. Figure 4 illustrates the responses to question 50 (Knowledge and experience). About 27-28% of all respondents think that their required knowledge should be at essential levels but the rest of them think they would like to utilize higher knowledge and experience in their work(s) and intend to refresh themselves as professionals. This result interestingly does not show a clear difference between superior and average performers. The finding might be interpreted that

knowledge and skill are recognized as necessary competencies, referenced as '*threshold competencies*', which is important to understand job competencies.

Summary and Discussion

Anne Bell, the university librarian at University of Warwick, UK asserted that we were focusing too much on the process of professional work (personal communication, February 5, 2008). She raised a problem of library professionals who are sticking to their acquired competencies for their routine processes and hesitating to change their tasks. Now reviewing library and information professionals' transforming competency from new perspectives is a vital issue. For the purpose intended, this study has tried to reexamine the competency of library and information professionals from the perspective of creative attitudes rather than the attention to the process of their jobs.

BEI and HERA were used to identify library and information professionals' competencies. The superior performers have shown their excellent interpersonal skills and high motivation during their interviews. One might conclude that the competencies of library and information professionals have a more customer-oriented profile. Their characteristics are different from the competencies of 'Technical Professionals', whose priorities are more oriented to achievement/impact and cognitive abilities in their professional field as shown in Table 1. In addition some cognitive/intellectual competencies of the superior performers were easily confirmed by HERA survey results. This trial's scope is not broad enough to set up a competency dictionary/model for library and information professionals in general. But certainly the study uncovered some characteristics to develop a typography of competencies of academic library staff engaging in emerging services.

As a matter of course, *threshold competencies* (knowledge and skills) are essential to performance. Lately these have been modified a lot and continue to change swiftly, responding to social and technological development. For that reason, researchers should devote attention to understanding them. Challenges remain to associate knowledge and skills work with best practice, and especially methods to produce efficient processes. Cultivation of core-personality competencies is one answer McClelland has suggested. But future research might identify more concrete ideas to improve preparation for the changing nature of librarianship and other information professions. So the author advocates the association between knowledge (knowledge and skills) and core-personality (motive, traits and self-image) of "competency" and seeking to identify ways for these to work together to improve staff performance.

At the moment, the author places his hope on the formation of 'communities of practice' which is a concept developed by Jean Lave and Etienne Wenger (Wenger, McDermott, & Snyder 2002). It is the process of sharing knowledge and skills within a group or community. Actually the members of the community learn from each other and have an opportunity to develop themselves not only through knowledge but also in core-personality competencies. In this study as well it was visible that most superior performers have this kind of communication (shown in Figure 1) in their work places including networked communities.

Acknowledgements

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Note

The author acknowledges for the courteous permission of HERA by ECC: Educational Competencies Consortium, Ltd. HERA scheme is an analysing tool for the activity of role holders as mentioned in 'HERA as a job analysis methodology', but the arguments here are not along the line of it. It should be noticed that this paper raises a different interpretation of HERA in a specific context. Further details of the use of HERA and its associated competency framework can be obtained from ECC's web site or by email via contactus@ecc.ac.uk.

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