

# Characteristics of Faculty Mentors in Library and Information Science Doctoral Education\*

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## ABSTRACT

Mentoring by faculty advisors is closely related to the personal and professional outcomes of doctoral students. However, few researchers have examined the characteristics of faculty mentors. To deal with this lack of research, the author attempted to explore the characteristics of faculty mentors from the perspective of Library and Information Science (LIS) doctoral students in the United States. In the study, the author combined interviews and a survey to examine the characteristics of faculty mentors. The interview and survey findings present a list of characteristics that are comprehensive and specific to LIS doctoral education. Specifically, the author describes a faculty mentor as a well-rounded person who possesses both professional and interpersonal characteristics. In addition, the findings show some aspects in which the current advising/mentoring could improve. The current study offers a guideline for the accomplishment of doctoral mentoring at a concrete level, rather than vaguely recommending that faculty advisors support the professional and psychosocial development of their students. In a following paper, the author will relate background characteristics of doctoral students to their perception of mentors.

Keywords: Mentor Characteristics, Faculty Advisors, Library and Information Science (LIS), Doctoral Education, Academic Mentoring

\* This article is part of doctoral dissertation (Lee, J. (2016). *Information exchanged in mentoring between faculty advisors and their doctoral students* (Unpublished doctoral dissertation), Florida State University, Tallahassee, USA).

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논문접수일자: 2016년 10월 24일 최초심사일자: 2016년 10월 24일 게재확정일자: 2016년 11월 18일  
한국문헌정보학회지, 50(4): 231-252, 2016. [http://dx.doi.org/10.4275/KSLIS.2016.50.4.231]

## 1. Introduction

Mentoring has been characterized as a supportive relationship in which an older, wiser, and more experienced person assists in the development of a younger, less experienced person (Lyons, Scroggins and Rule 1990; Merriam 1983). Studies on adult development in the 1970s led to a rise in the popularity of mentoring (Crosby 1999), and Kathy Kram (1983; 1988) formulated the field of mentoring (Crosby 1999). However, there is still a lack of agreement on the definition of mentoring (Jacobi 1991; Bierema and Merriam 2002; Mertz 2004).

In doctoral education, Burg (2010) differentiated mentoring from advising, saying that mentoring provides doctoral students with “support that goes beyond the basic duties of advising” (p. 6). Also, Titus and Ballou (2013) noted that while advisors are more likely to take administrative or institutional roles to students, mentors are involved with more diverse activities such as “promoting visibility in their field, professional socialization, and networking” (p. 1274). Johnson, Rose, and Schlosser (2007) further elaborated on this idea as follows:

Advising relationships that are successful, and in which the advisor and advisee become closer, more committed, and find the relationship more important, are most likely to evolve into mentorships (pp. 58-59).

That is, not every mentor-protégé relationship achieves true mentorship in doctoral education (Sugimoto 2009; Lunsford et al. 2013). Studies often estimated that one half to two thirds of doctoral advisees see their advisors as mentors, and in Library and Information Science (LIS), around 70% (53 of 75) of advisees view their faculty advisors as mentors (Sugimoto 2012a). Despite the important role of mentoring for the psychosocial and professional development of protégés in organizational and education contexts (Kram and Isabella 1985; Sugimoto 2012a), few researchers have examined the characteristics of faculty mentor comprehensively. Therefore, in this study, the author attempted to explore the characteristics of faculty mentors from the perspective of LIS doctoral students.

## 2. Literature Review

### 2.1 Definition of Mentor and Mentoring

Some studies attempted to distinguish the concept of a mentor from other relevant concepts such

as role model, sponsor, and advisor (Burg 2010; Mertz 2004; Speizer 1981). A role model is often characterized by emotional or psychosocial function (Crosby 1999; Mertz 2004), and it does not require a relationship (Johnson, Rose and Schlosser 2007). Crosby (1999) defined a sponsor as “a senior person who gives instrumental help to a more junior person” (p. 15), and this term has been used often in workplace settings (Speizer 1981).

Scholars have identified key components of mentoring, as there have been variations for the definition (Jacobi 1991). For example, Jacobi characterizes mentoring as having three major functions (i.e., emotional and psychosocial, career and professional development, and role modeling) after reviewing 15 different definitions from education, management, and psychology. Bierema and Merriam (2002) suggest three components for a mentoring relationship, explaining that (a) mentors and protégés should rely on mutual respect and trust; (b) they should be committed to the relationship; and (c) there should be frequent and regular interactions between them. Johnson et al. (2007) delineate ideal mentoring as “dynamic, reciprocal, personal relationships in which a more experienced faculty mentor acts as a guide, role model, teacher, and sponsor of a less experienced student (protégé)” (p. 59). Furthermore, Haggard et al. (2011) propose that the definition of mentoring be based on the core attributes of “reciprocity”, “developmental benefits”, and “regular/consistent interaction” (p. 292).

To sum up, despite some inconsistencies across scholars, it is evident that mentoring relationships promote protégés’ personal and professional development based on mutual trust and respect.

## 2.2 Functions of Academic Mentoring

Many scholars have also conducted research on mentoring in higher education, that is, academic mentoring (Burg 2010; Sugimoto 2009), but relatively fewer methodologically sophisticated studies have been done in educational settings compared to workplace settings (Johnson et al. 2007). Furthermore, while many studies on academic mentoring dealt with mentoring of teachers and principals, less research has focused on mentoring between faculty and doctoral student (Burg 2010).

Some mentoring frameworks, especially Kram’s theoretical framework, have been used frequently to understand academic mentoring in graduate education, and much work has supported Kram’s mentoring functions (Johnson et al. 2007). For example, Clark, Harden, and Johnson (2000) confirmed the nine mentoring functions of Kram (1988) through a survey of 787 doctoral graduates in clinical psychology. Also, Tenenbaum, Crosby, and Gliner (2001) applied Kram’s mentoring functions

(i.e., instrumental and psychosocial) to investigate the relationship of mentoring, student satisfaction, and scholarly productivity.

In doctoral education in the field of LIS, Sugimoto (2009; 2012a; 2012b) did some representative mentoring research. As part of her dissertation, Sugimoto (2012a) addressed characteristics of academic mentoring using Kram's framework, categorizing the dimensions of mentoring into "psychosocial", "pedagogical", and "career preparation and acculturation" based on the results of questionnaires and interviews. Furthermore, Sugimoto (2012b) analyzed the behavioral and procedural features of LIS doctoral students in mentoring by relating them to the mentoring phases suggested by Kram (1983).

### 2.3 Outcomes of Academic Mentoring

Scholars have documented the personal and professional outcomes (i.e. attitudinal and behavioral outcomes) of academic mentoring (Allen and Eby 2008; Johnson 2007). From the perspective of protégés, positive outcomes are often reported as an increase in completion rate, student satisfaction, academic performance, networking, and professional skill development (Clark, Harden and Johnson 2000; Johnson 2007; Paglis, Green and Bauer 2006; Tenenbaum, Crosby and Gliner 2001). In addition, Eby et al. (2008) claimed that academic mentoring can improve attitudes toward school, which ultimately decreases withdrawal behavior. Specifically, Clark et al. (2000) discovered that mentored doctoral graduates were more satisfied with their program than non-mentored respondents. Also, Tenenbaum et al. (2001) found that psychosocial mentoring can enhance the satisfaction of protégés with their advisors. Moreover, other researchers suggested the positive effect of mentoring in graduation education on the research productivity of protégés (Hollingsworth and Fassinger 2002; Paglis et al. 2006).

## 3. Methods

### 3.1 Research Questions

The literatures reviewed in an earlier section reflect that few researchers have investigated the characteristics of faculty mentors in doctoral education despite its important role in future outcomes of students. To deal with this dearth, three research questions were asked in the study:

- RQ 1. How do LIS doctoral students characterize the role of faculty mentors?
- RQ 2. Are there any differences in the perceptions of characteristics of ideal mentors and current advisors? How are they different?
- RQ 3. Are there any differences in the perceptions of mentor/advisor characteristics between doctoral students who are in thementoring and non-mentoring relationships? How are they different?

### 3.2 Data Collection

The author used a mixed methods design to explore the characteristics of faculty mentors and to generalize them to a larger population. In the first stage of the study, the author interviewed ten LIS doctoral students from nine US universities and explored the characteristics of faculty advisors and mentors. In choosing the interview participants, the author considered their gender, stage of doctoral work, and nationality to cover diverse perspectives (see Table 1).

<Table 1> Description of interview participants

ID	Name	Affiliation	Stage*	Gender	Nationality
P1	Heidi	University "A"	Pre-candidate	Female	United States
P2	Charles	University "B"	Pre-candidate	Male	United States
P3	Jina	University "C"	Pre-candidate	Female	South Korea
P4	Ann	University "D"	Pre-candidate	Female	Canada
P5	John	University "E"	Pre-candidate	Male	United States
P6	Daniela	University "F"	Candidate	Female	Brazil
P7	Shanshan	University "G"	Candidate	Female	China
P8	Peter	University "F"	Candidate	Male	United States
P9	Susan	University "H"	Candidate	Female	United States
P10	Claire	University "I"	Candidate	Female	United States

Note. \* The stage of doctoral work at the time of interview

The general questions asked during the interviews were:

- (1) Do you think your faculty advisor is a mentor to you? Why do you think your faculty advisor is/isn't a mentor to you?
- (2) How would you describe a faculty mentor?
- (3) How is your relationship with your advisor different from other relationships with other faculty?

After the interviews, the author conducted a follow-up survey to test and generalize the interview findings. Specifically, the questionnaire (available upon request) was developed based on the findings from the interviews. The population of the survey was full-time LIS doctoral students in the US as of fall 2015, and a link to the survey questionnaire was sent to the entire population. In particular, the author distributed survey invitation letters via JESSE listserv, department mailing lists, and individual emails if available online. The survey was conducted over the course of three weeks (October 22-November 13, 2015), and 132 completed survey responses were collected from 18 different US universities.

### 3.3 Data Analysis

The author analyzed the contents of interviews, focusing on identifying “the communication of meaning” (Merriam 2009, p.205). To ensure reliability, the researcher developed a codebook and checked inter-coder agreement with a third-party LIS doctoral student. To achieve internal validity, the author conducted member checks that solicited interview participants’ feedback on the findings of the study.

In analyzing survey data, the author used both the percentages of responses in each item, especially percentages of the two top positive responses (e.g., strongly agree/agree, very frequently/frequently), and descriptive statistics (e.g., mean, standard deviations) because relying solely on descriptive statistics for analyzing Likert-type responses (nominal data) is inappropriate for characterizing data and generates unclear meanings (Jamieson 2004). Also, the descriptive and non-parametric statistical tests (the Mann-Whitney U, the Wilcoxon sign-rank test) using SPSS were used to examine differences in the distribution of responses across items or between groups as the survey data were not normally distributed.

## 4. Findings

### 4.1 Perceptions of Relationships with Advisors

The participants were asked, “Do you consider your faculty advisor (i.e., major professor) a mentor?” All the interview participants in this study considered their advisors to be mentors. In the survey, 119 (90.2%) participants agreed that they viewed their advisors as mentors, while

13 (9.8%) disagreed, supporting that advisor-advisee relationships in LIS doctoral education are likely to evolve into mentorships.

## 4.2 Mentor Characteristics from Interviews

**Experienced/Knowledgeable.** A faculty mentor is someone who can provide participants with academic information, knowledge, or experience. This mentor characteristic can be expressed through mentors' academic credentials/work, feedback on protégés' work, and instructions about academic life/world/norms. Daniela stated that her advisor gave feedback on her research and informed her about academic world. Shanshan received advice from her advisor about how to search for jobs and prepare for job interviews. She also learned how to write a dissertation and handle academic politics. In addition, John said that his advisor is experienced given his academic status and degree in information science.

**Approachable.** A faculty mentor is someone who is accessible to protégés and makes them feel comfortable enough to talk. Daniela said that her advisor is generous with her time, and Susan noted that she scheduled meetings with her advisor whenever she had any problems or questions. John stated the importance of his advisor's accessibility: "I want to make sure that he has time [for me] because [mentoring] is a commitment from both sides." Two participants reported that they feel comfortable talking with their advisors. For example, Claire said that she could ask her advisor anything without feeling stupid.

**Cooperative.** A faculty mentor is someone who is willing to provide participants with academic or emotional help. Three participants stated that their advisors have helped them with respect to their research; Daniela noted that her advisor helped her progress in research and introduces her to other faculty. Peter said that his advisor has helped him focus on research questions. Heidi made a general comment about her advisor: "She helps me to keep my focus." Participants also stated that their advisors offered them emotional support; for example, Daniela said that she could share personal issues with her advisor.

**Collaborative.** A faculty mentor is someone who is able to work with participants. One participant has worked with his advisor on research grants although the focus of his research was different from that of his advisor: "I've worked with her very closely in writing grants, which was really good to learn. In that regard, I've been very happy." Another participant viewed her advisor as a person who is both a friend and a collaborator.

**Personable.** A faculty mentor is someone who protégés can talk to about their personal lives.

Three participants mentioned this characteristic explicitly; John said that his advisor liked to talk about his life such as his kids or cats, stating, “He is personal on that aspect. I think of him as definitely more than just my advisor.” John’s advisor has also shared his personal life experience as an academic. Shanshan has talked with her advisor about how to handle challenges in her personal life. Claire said that her advisor knows her partner, stating that she knows “what factors are going into decisions that I’m making that are not just academic but that are also personal or family-related.”

**Future-oriented.** A faculty mentor is someone who is concerned about protégés’ futures. Heidi’s advisor has helped her continue to think about moving forward in the work she is doing. Furthermore, Susan stated that, “She actively tries to anticipate next steps for me, things that I need to think about that I haven’t thought about yet.” Specifically, Shanshan’s advisor gave her advice on how to become a faculty member in the future.

**Dedicated.** A faculty mentor is someone who pays attention to and puts effort forth in helping protégés’ progress. Two participants noted their advisors’ attentiveness. Susan said that her advisor helped her strategize ways to get back on track when she became distracted. In addition, Claire’s advisor checked to be sure that she was prepared fully for her conferences. Also, Daniela stated that her advisor has been dedicated to helping her to pursue her degree.

**Patient/Strict.** A faculty mentor is someone who possesses both patience and strictness about protégés’ progress. A participant described his advisor’s patience, saying “She has never been upset or been harsh with me in terms of not focusing.” Ann said that her advisor is very receptive to whatever she brings to her, noting, “She doesn’t really push me in a certain direction.” On the other hand, a participant hoped that her advisor could use more strictness, and should be more willing to say “You should get this done. You need to get to work.”

**Encouraging.** A faculty mentor is someone who encourages protégés’ progress. A participant mentioned that her advisor helped her stay focused, encouraging her in what she has done so far or is doing: “She reminds me to honor the work that I have done... ‘You are doing work and you are making progress.’ She is good at that motivational aspect...”

**Exemplary.** A faculty mentor is someone who is a role model to participants. A participant said that his advisor is a good role model in terms of teaching and service. According to him, his advisor takes teaching seriously and puts a lot of effort into presenting materials in his classes. His advisor is “one of the best teachers” in his department. Ann said that her advisor leads by example, and mentioned that she has good things to say and runs extra discussions every Friday at lunch.



**Clear.** A mentor is someone who is honest, straightforward, and transparent to participants. Charles said that his advisor is very honest and straightforward, and Susan’s advisor has tried to make her work process transparent to her, saying, “She doesn’t keep it mysterious how she does her work. She tries to make it transparent about how she organizes a project, sources, time...”

To sum up, the author was able to identify some characteristics of ideal mentors comprehensively by investigating the relationships that interview participants have with their advisors that contribute to building supportive and trustworthy mentoring relationships. However, faculty advisors may not actually possess all such characteristics, but only some of them, meaning that the characteristics described above can be referenced with respect to better doctoral mentoring practices.

### 4.3 Mentor Characteristics from a Survey

Based on the characteristics of faculty mentors identified through the interviews, the author conducted a follow-up survey. In the development of the survey instrument, several characteristics, including “approachable”, “cooperative”, and “dedicated”, were separated into more than one dimension, as they could convey various meanings (Table 2).

<Table 2> Mentor characteristics from interview findings and survey items

	Interview Findings	Survey Items
Mentor characteristics	Experienced/Knowledgeable	Is knowledgeable/experienced
	Approachable	Is easy to talk to Is accessible
	Cooperative	Provides academic help Provides emotional help
	Collaborative	Is willing to collaborate
	Personable	Takes an interest in my personal life
	Future-oriented	Is interested in my future career
	Dedicated	Pays attention to my progress Puts effort into helping my progress
	Patient/Strict	Is patient with my progress Is strict
	Encouraging	Is encouraging
	Exemplary	Is a role model
	Clear	Is honest, straightforward, and transparent

### *Perceptions of Ideal Mentors*

Survey participants rated the extent to which they agreed or disagreed (ranging from strongly agree to strongly disagree) with 15 statements describing their ideal/perfect mentors (Table 3). More than 90% of the participants agreed that the characteristics for ideal mentors included “Is knowledgeable/experienced”, “Is honest, straightforward, and transparent”, “Puts efforts into helping my progress”, “Is easy to talk to”, “Is interested in my future career”, “Is accessible”, “Pays attention to my progress”, “Is encouraging”, “Provides academic help”, and “Is a role model”. Also, more than 80% agreed that ideal mentors are “patient with my progress” and “willing to collaborate”. Around 70% thought that ideal mentors need to “Provide emotional support”. Relatively fewer participants agreed that ideal mentors should either be “interested in my personal life” (53.7%) or “strict” (41.7%). Compared to the percentages of agreement, several items, such as “Is easy to talk to”, “Is accessible”, and “Pays attention to my progress”, were better ranked using the means; this is because such items had relatively more responses of *strongly agree* (scale of 5).

〈Table 3〉 Characteristics for ideal/perfect mentors ( $N=132$ )

Characteristics	1	2	3	4	5	4+5	Mean	SD
Is knowledgeable/experienced	0.8%	-	0.8%	9.1%	89.4%	98.5%	4.86	0.47
Is honest, straightforward, and transparent	0.8%	-	1.5%	15.2%	82.6%	97.8%	4.79	0.54
Is easy to talk to	0.8%	-	2.3%	20.5%	76.5%	97.0%	4.72	0.58
Is accessible	0.8%	-	2.3%	23.5%	73.5%	97.0%	4.69	0.59
Is encouraging	-	1.5%	2.3%	25.0%	71.2%	96.2%	4.66	0.60
Puts efforts into helping my progress	-	1.5%	2.3%	18.2%	78.0%	96.2%	4.73	0.58
Is interested in my future career	0.8%	-	3.8%	18.2%	77.3%	95.5%	4.71	0.61
Pays attention to my progress	0.8%	-	4.5%	19.7%	75.0%	94.7%	4.68	0.63
Provides academic help	-	3.0%	4.5%	19.7%	72.7%	92.4%	4.62	0.72
Is a role model	0.8%	0.8%	7.6%	22.0%	68.9%	90.9%	4.58	0.73
Is willing to collaborate	1.5%	-	9.1%	28.8%	60.6%	89.4%	4.47	0.79
Is patient with my progress	-	3.0%	13.6%	26.5%	56.8%	83.3%	4.37	0.83
Provides emotional help	0.8%	3.8%	25.8%	34.8%	34.8%	69.6%	3.99	0.91
Takes an interest in my personal life	3.0%	6.1%	37.1%	29.5%	24.2%	53.7%	3.66	1.01
Is strict	5.3%	18.9%	34.1%	26.5%	15.2%	41.7%	3.27	1.10

Note. Participants responded 5-point Likert-type questions (1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree); SD=standard deviation.

### *Perceptions of Current Advisors*

Participants were also asked to rate the extent to which they agreed or disagreed (ranging from strongly agree to strongly disagree) with 15 statements about their current advisors (Table 4). The percentages of participants' agreement for all statements were lower than their ratings

for ideal/perfect mentors. 98.4% of the participants agreed that their advisor “Is knowledgeable/experienced”. In addition, more than 80% agreed that their advisor “Is honest, straightforward, and transparent”, “Provides academic help”, “Is encouraging”, “Puts efforts into helping my progress”, “Is easy to talk to”, “Is accessible”, and “Is interested in my future career”. More than 70% described that their advisor “Is willing to collaborate”, “Is a role model” and “Is patient with my progress”.

However, only half the participants agreed that their advisors “Provide emotional help” or “Takes an interest in my personal life”. Only 33.3% reported that their advisor “Is strict”. Compared to means, a few items, such as “Is easy to talk to”, “Is interested in my future career” and “Is patient with my progress”, were underrated with the agreement percentages, reflecting that the sum of agreement percentages in such items was lower than other items, but the items had more responses of *strongly agree*.

<Table 4> Characteristics of participants’ current advisors (N=132)

Characteristics	1	2	3	4	5	4+5	Mean	SD
Is knowledgeable/experienced	-	-	1.5%	29.5%	68.9%	98.4%	4.67	0.50
Is honest, straightforward, and transparent	0.8%	3.8%	9.1%	22.0%	64.4%	86.4%	4.45	0.87
Provides academic help	0.8%	4.5%	8.3%	36.4%	50.0%	86.4%	4.30	0.86
Is encouraging	0.8%	3.8%	11.4%	35.6%	48.5%	84.1%	4.27	0.87
Puts efforts into helping my progress	1.5%	4.5%	9.8%	35.6%	48.5%	84.1%	4.25	0.92
Is easy to talk to	1.5%	5.3%	9.8%	25.8%	57.6%	83.4%	4.33	0.96
Is accessible	2.3%	6.1%	9.1%	36.4%	46.2%	82.6%	4.18	0.99
Pays attention to my progress	2.3%	4.5%	10.6%	32.6%	50.0%	82.6%	4.23	0.97
Is interested in my future career	0.8%	2.3%	15.2%	24.2%	57.6%	81.8%	4.36	0.87
Is willing to collaborate	-	5.3%	15.2%	40.9%	38.6%	79.5%	4.13	0.86
Is a role model	-	5.3%	15.9%	31.8%	47.0%	78.8%	4.20	0.90
Is patient with my progress	1.5%	3.8%	16.7%	28.0%	50.0%	78.0%	4.21	0.96
Takes an interest in my personal life	6.8%	11.4%	31.1%	28.0%	22.7%	50.7%	3.48	1.16
Provides emotional help	5.3%	10.6%	34.8%	28.0%	21.2%	49.2%	3.49	1.10
Is strict	9.1%	24.2%	33.3%	19.7%	13.6%	33.3%	3.05	1.16

**Comparison of Current Advisors and Ideal Mentors**

The percentages of agreement and the means for current advising and ideal mentoring characteristics were compared. As reported in Table 5, the percentages of agreement for ideal mentors were higher than those for current advisors for all 15 items, indicating that there is room for participants’ current advisors to improve. For example, while 49.2% of participants reported that their advisors

provided emotional support, 69.6% believed that ideal mentors should provide such support. Although more than 82.6% agreed that their advisors were accessible, 14.4% perceived that their mentors could be more accessible. 13.7% and 13.6% of the participants did not agree that their current advisors are interested in their future career or easy to talk to, which ideal mentors are supposed to be.

Moreover, approximately 12% reported that their ideal mentors would be more honest/straightforward/transparent, encouraging, put more effort into helping their progress, pay more attention to their progress, and be role models more than their current advisors. The percentage of agreement on the strictness of ideal mentors was 8.4% higher than that of current advisors, but the agreement was still the lowest (41.7%) among all items. Also, only 3% more perceived that ideal mentors than current advisors would take an interest in their personal lives. These findings suggest that strictness and showing interest in personal lives are mentor characteristics that may be less important.

<Table 5> Comparison of the percentages of agreement for ideal mentors and current advisors

Characteristics	Ideal mentor (A)	Current advisor (B)	A-B
	% of agreement	% of agreement	
Provides emotional help	69.6%	49.2%	20.4%
Is accessible	97.0%	82.6%	14.4%
Is interested in my future career	95.5%	81.8%	13.7%
Is easy to talk to	97.0%	83.4%	13.6%
Is honest, straightforward, and transparent	98.8%	86.4%	12.4%
Is encouraging	96.2%	84.1%	12.1%
Puts efforts into helping my progress	96.2%	84.1%	12.1%
Pays attention to my progress	94.7%	82.6%	12.1%
Is a role model	90.9%	78.8%	12.1%
Is willing to collaborate	89.4%	79.5%	9.9%
Is strict	41.7%	33.3%	8.4%
Provides academic help	92.4%	86.4%	6.0%
Is patient with my progress	83.3%	78.0%	5.3%
Takes an interest in my personal life	53.7%	50.7%	3.0%
Is knowledgeable/experienced	98.5%	98.4%	0.1%

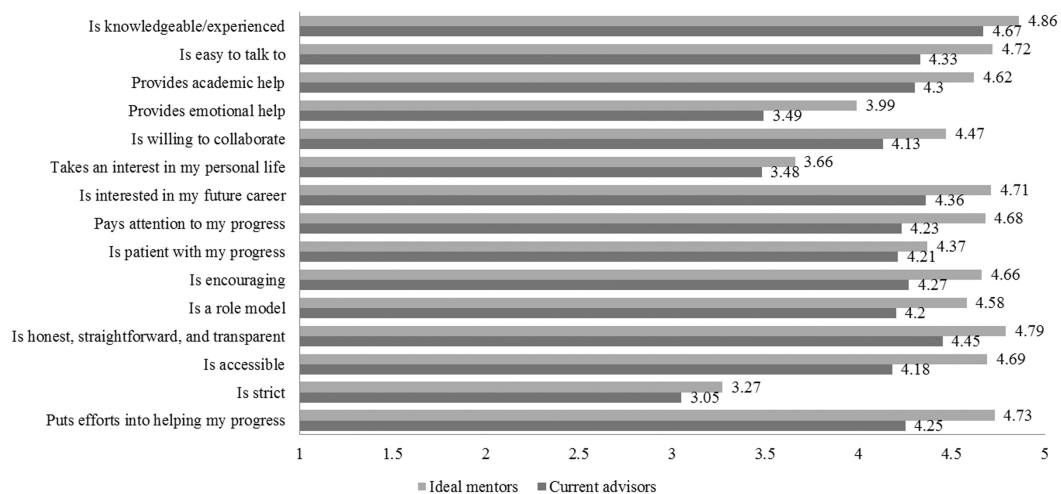
The mean differences in individual items between current advisors and ideal mentors were examined. As illustrated in the bar charts (Figure 1), ideal mentors had higher mean scores than current advisors across all items. This supports the finding that the percentage of agreement on all items is stronger for ideal mentors than current advisors. The researcher also checked the median differences in individual items using a non-parametric statistical test (Wilcoxon signed-rank test), as the samples were not normally distributed. Table 6 reports the results of these tests,

showing that there are statistically significant median differences in the extent of agreement on the 13 items. These findings suggest that participants' perceptions of current advising characteristics are different from their idealized mentoring. However, the median differences in the characteristics of advisors/mentors' patience and interests in participants' personal lives were not significant.

<Table 6> Comparison of the extent of agreement for ideal mentors and current advisors

Characteristics	Ideal mentors		Current advisors		Wilcoxon sign-rank test	
	Mean	SD	Mean	SD	Z	Sig.
Is knowledgeable/experienced	4.86	0.47	4.67	0.50	-3.98	< .001*
Is easy to talk to	4.72	0.58	4.33	0.96	-4.45	< .001*
Provides academic help	4.62	0.72	4.30	0.86	-3.88	< .001*
Provides emotional help	3.99	0.91	3.49	1.10	-4.43	< .001*
Is willing to collaborate	4.47	0.79	4.13	0.86	-4.43	< .001*
Takes an interest in my personal life	3.66	1.01	3.48	1.16	-1.66	.097
Is interested in my future career	4.71	0.61	4.36	0.87	-4.45	< .001*
Pays attention to my progress	4.68	0.63	4.23	0.97	-4.76	< .001*
Is patient with my progress	4.37	0.83	4.21	0.96	-1.64	.101
Is encouraging	4.66	0.60	4.27	0.87	-4.50	< .001*
Is a role model	4.58	0.73	4.20	0.90	-4.43	< .001*
Is honest, straightforward, and transparent	4.79	0.54	4.45	0.87	-4.22	< .001*
Is accessible	4.69	0.59	4.18	0.99	-4.97	< .001*
Is strict	3.27	1.10	3.05	1.16	-2.60	< .05*
Puts efforts into helping my progress	4.73	0.58	4.25	0.92	-4.80	< .001*

Note. \* Significant at the .05 level (2-tailed).



<Figure 1> Mean scores of characteristics for ideal mentors and current advisors

***Differences in the Perception of Mentor/Advisor Characteristics by Relationship Type***

Differences in the scores on ideal mentor/advisor characteristics between the two groups, that is, (1) participants who considered their advisors mentors (mentoring group,  $N=119$ ) and (2) participants who did not consider their advisors mentors (non-mentoring group,  $N=13$ ), were explored. A Mann-Whitney U test was used to assess differences in the distributions of the scores between the two groups.

Table 7 reports how differently each group perceived the characteristics of ideal mentors. Six items showed statistically significant differences in the distribution of scores: “Provides academic help”; “Takes an interest in my personal life”; “Is interested in my future”; “Is encouraging”; “Is a role model” and “Is honest, straightforward, and transparent”. In those items, the participants in the mentoring group agreed more strongly than those in the non-mentoring group, indicating that the mentoring group had higher expectations for ideal mentors.

〈Table 7〉 Perceptions of ideal mentors between mentoring and non-mentoring groups

Characteristics	Mentoring group (N=119)		Non-mentoring group (N=13)		Mann-Whitney U test		
	Mean	SD	Mean	SD	U	Z	Sig.
Is knowledgeable/experienced	4.87	0.49	4.85	0.38	734.50	-0.56	.577
Is easy to talk to	4.74	0.59	4.54	0.52	591.00	-1.89	.059
Provides academic help	4.66	0.69	4.23	0.83	498.50	-2.69	<.05*
Provides emotional help	4.03	0.92	3.69	0.75	586.50	-1.51	.132
Is willing to collaborate	4.49	0.80	4.31	0.63	614.50	-1.40	.162
Takes an interest in my personal life	3.72	0.97	3.08	1.19	524.00	-2.00	<.05*
Is interested in my future career	4.74	0.60	4.46	0.66	576.00	-2.07	<.05*
Pays attention to my progress	4.71	0.62	4.46	0.78	643.50	-1.32	.189
Is patient with my progress	4.41	0.81	4.00	1.00	587.00	-1.60	.110
Is encouraging	4.69	0.59	4.38	0.65	558.00	-2.09	<.05*
Is a role model	4.62	0.71	4.15	0.80	501.50	-2.55	<.05*
Is honest, straightforward, and transparent	4.82	0.52	4.54	0.66	589.50	-2.13	<.05*
Is accessible	4.71	0.60	4.54	0.52	617.00	-1.56	.120
Is strict	3.31	1.10	2.92	1.04	647.00	-1.00	.317
Puts efforts into helping my progress	4.75	0.57	4.54	0.56	631.00	-1.51	.131

Note. \* Significant at the .05 level (2-tailed).

Furthermore, Table 8 show that the distributions of the scores on current advisors differed significantly between the two groups in 13 items; the two items that were not statistically different were “Is knowledgeable/experienced” and “Is strict”. These findings suggest that the participants

in the mentoring and non-mentoring groups perceived their advisors' expertise and strictness similarly, but they had different perceptions of other aspects, such as personal, emotional, and academic helpfulness. When there were statistically significant differences, the mean scores in the mentoring group were always higher than those in the non-mentoring group, suggesting that the mentoring group agreed more strongly about the ideal mentor/advisor characteristics considered in the study than did the non-mentoring group.

<Table 8> Perceptions of current advisors between mentoring and non-mentoring groups

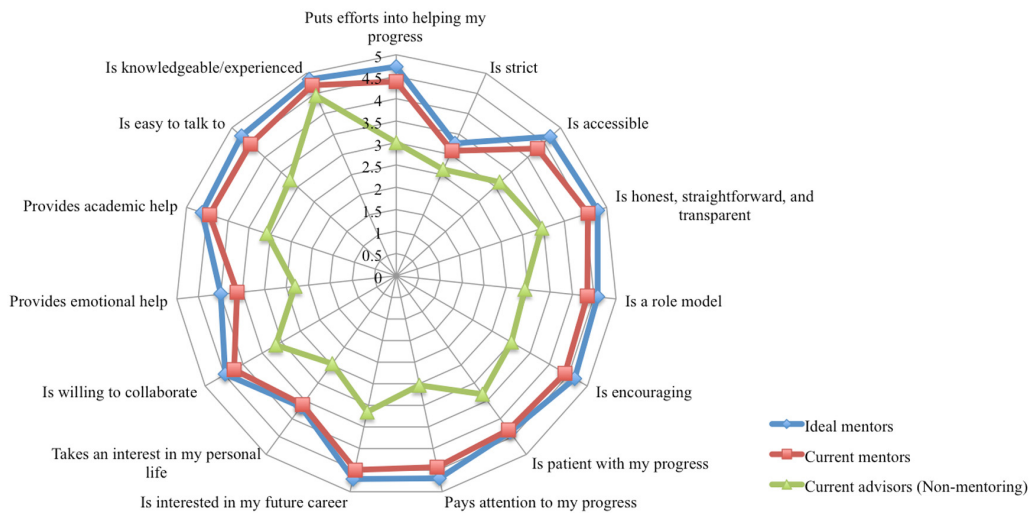
Characteristics	Mentoring group (N=119)		Non-mentoring group (N=13)		Mann-Whitney U test		
	Mean	SD	Mean	SD	U	Z	Sig.
Is knowledgeable/experienced	4.70	0.48	4.46	0.66	629.50	-1.37	.171
Is easy to talk to	4.45	0.80	3.23	1.54	419.00	-3.04	<.05*
Provides academic help	4.44	0.68	3.08	1.32	412.00	-3.80	<.001*
Provides emotional help	3.62	1.03	2.31	1.11	290.00	-3.84	<.001*
Is willing to collaborate	4.24	0.79	3.15	0.90	296.50	-3.91	<.001*
Takes an interest in my personal life	3.60	1.14	2.46	0.88	432.00	-3.42	<.001*
Is interested in my future career	4.49	0.73	3.15	0.90	350.50	-4.41	<.001*
Pays attention to my progress	4.42	0.73	2.54	1.27	180.00	-4.95	<.001*
Is patient with my progress	4.31	0.83	3.31	1.49	471.50	-2.50	<.05*
Is encouraging	4.41	0.69	3.00	1.22	273.00	-4.17	<.001*
Is a role model	4.34	0.78	2.92	0.95	219.50	-4.56	<.001*
Is honest, straightforward, and transparent	4.56	0.74	3.46	1.27	357.50	-3.74	<.001*
Is accessible	4.29	0.84	3.15	1.57	463.50	-2.56	<.05*
Is strict	3.09	1.13	2.62	1.45	606.50	-1.32	.188
Puts efforts into helping my progress	4.39	0.78	3.00	1.15	258.00	-4.30	<.001*

Note. \* Significant at the .05 level (2-tailed).

To identify gaps between ideal mentors and current mentors/advisors, the means for ideal mentors by all participants were compared with the means of the mentoring and non-mentoring groups (Table 9). Figure 2 illustrates the mean differences, and shows that the mentoring group's advisors were more similar to ideal mentors for all items, while the non-mentoring group's advisors were relatively distant from ideal mentors.

<Table 9> Comparison of ideal mentors with current mentors/advisors

Characteristics	Ideal mentors (N=132)		Current advisors			
			Mentoring group (N=119)		Non-mentoring group (N=13)	
	Mean	SD	Mean	SD	Mean	SD
Is knowledgeable/experienced	4.86	0.47	4.70	0.48	4.46	0.66
Is easy to talk to	4.72	0.58	4.45	0.80	3.23	1.54
Provides academic help	4.62	0.72	4.44	0.68	3.08	1.32
Provides emotional help	3.99	0.91	3.62	1.03	2.31	1.11
Is willing to collaborate	4.47	0.79	4.24	0.79	3.15	0.90
Takes an interest in my personal life	3.66	1.01	3.60	1.14	2.46	0.88
Is interested in my future career	4.71	0.61	4.49	0.73	3.15	0.90
Pays attention to my progress	4.68	0.63	4.42	0.73	2.54	1.27
Is patient with my progress	4.37	0.83	4.31	0.83	3.31	1.49
Is encouraging	4.66	0.60	4.41	0.69	3.00	1.22
Is a role model	4.58	0.73	4.34	0.78	2.92	0.95
Is honest, straightforward, and transparent	4.79	0.54	4.56	0.74	3.46	1.27
Is accessible	4.69	0.59	4.29	0.84	3.15	1.57
Is strict	3.27	1.10	3.09	1.13	2.62	1.45
Puts efforts into helping my progress	4.73	0.58	4.39	0.78	3.00	1.15



<Figure 2> Comparison of ideal mentors with current mentors/advisors



## 5. Discussion

The interview findings provided a comprehensive list of mentor characteristics. Determining their relative importance will help faculty advisors distribute their efforts, considering that faculty work is not restricted to advising students. The researcher tested mentor characteristics with 132 LIS doctoral student participants in the US and quantified the importance of those qualities in the follow-up survey.

As shown in Table 10 below, survey participants regarded the majority of characteristics as important for faculty mentors, although advisors' strictness or interests in advisees' personal lives were somewhat neutral. In particular, the standard deviations (SD) for the two dimensions were relatively high (greater than 1), indicating that participants' opinions of those characteristics were mixed. One interview participant mentioned strictness, as she had hoped her advisor would be stricter. However, considering the results of the survey, advisees whose advisors were strict might have the opposite opinion. In a similar manner, although three interview participants responded that their advisors were personable, the survey findings suggested that not all advisees want to have personable advisors. Therefore, "adequate" levels of strictness and interest in advisees' personal lives are recommended.

<Table 10> Perceived importance of characteristics of ideal/perfect mentors (N=132)

Characteristics	Mean	SD
Is knowledgeable/experienced	4.86	0.47
Is honest, straightforward, and transparent	4.79	0.54
Puts efforts into helping my progress	4.73	0.58
Is easy to talk to	4.72	0.58
Is interested in my future career	4.71	0.61
Is accessible	4.69	0.59
Pays attention to my progress	4.68	0.63
Is encouraging	4.66	0.60
Provides academic help	4.62	0.72
Is a role model	4.58	0.73
Is willing to collaborate	4.47	0.79
Is patient with my progress	4.37	0.83
Provides emotional help	3.99	0.91
Takes an interest in my personal life	3.66	1.01
Is strict	3.27	1.10

Note. Participants responded to 5-point Likert-type questions (1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree); SD=standard deviation.

Six of the top-ranked items (“Is knowledgeable/experienced”, “Is honest, straightforward, and transparent”, “Puts efforts into helping my progress”, “Is interested in my future career”, “Pays attention to my progress” and “Provides academic help”) were related to mentors’ professional characteristics, while the other four (“Is easy to talk to”, “Is accessible”, “Is encouraging” and “Is a role model”) were associated with aspects of interpersonal relationship.

Specifically, mentors’ expertise (“Is knowledgeable/experienced”) was rated most highly, reflecting the importance of the intellectual aspect of faculty advisors. In contrast, the four items with the lowest rank were interpersonal, while one item (“Is willing to collaborate”) was professional. These findings suggest that doctoral students place more value on the professional than the interpersonal characteristics of faculty advisors. However, although the interpersonal characteristics had low rankings, we should not undervalue their role. Rather, it would be desirable to regard interpersonal characteristics as facilitators of knowledge transfer.

When comparing survey participants’ perceptions of their current advisors and ideal mentors (Table 6), there were statistically significant mean differences on nearly all items (13 out of 15) except, “Takes an interest in my personal life” and “Is patient with my progress”. These findings show that some students may need their advisors to engage more fully in advising. Similarly, the percentages of agreement (strongly agree/agree) for ideal mentors were higher than those for current advisors on all 15 items (Table 5), showing that there is room for participants’ current advisors to improve. Specifically, more than 10% of the survey participants did not agree that their current advisor “Provide[s] emotional help”, “Is accessible”, “Is interested in my future career”, “Is easy to talk to”, “Is honest, straightforward, and transparent”, “Is encouraging”, “Puts effort into helping my progress”, “Pays attention to my progress”, and “Is a role model”, which ideal mentors are supposed to be.

Notably, the largest proportion of the participants (20.4%) perceived that their current advisors did not provide the emotional support that is required for ideal mentors. The relative importance of “Provides emotional help” was not ranked high, as shown in Table 10; however, the study findings showed that students needed emotional support the most, indicating that their current advisors/mentors did not provide this factor sufficiently. The doctoral training process requires consistent intellectual effort over a long period, during which students may experience emotional difficulties. Therefore, a faculty advisor who provides emotional support for his/her students would facilitate the successful completion of their studies.

Because the majority of participants (119 of 132) reported that their current advisors were mentors (even though they might not be “ideal mentors”), the author conducted further comparisons

of their perceptions of ideal mentors and their current mentors/advisors (Table 9). As illustrated in Figure 2, current advisors who were considered non-mentors had low scores in many quality dimensions, while having similar scores in the dimensions of “Is knowledgeable/experienced” and “Is strict” indicating that having academic expertise and a certain level of strictness are not sufficient for being mentors.

Current mentors were quite similar to ideal mentors, although the scores of current mentors were slightly lower than those of ideal mentors. The minor differences in scores between current and ideal mentors reflected the discrepancy between reality and ideals. Given that more than 90% of the study participants considered their advisors to be mentors, the faculty members in LIS doctoral education appear to have mentoring relationships with their students. Nevertheless, the differences between current mentors and ideal mentors and between current advisors and ideal mentors show the aspects in which the current advising/mentoring could improve.

## 6. Conclusions and Implications

The findings of the study are not generalizable to other disciplines, as they are limited to doctoral students in the field of library and information science (LIS). Also, the author focused on doctoral students' perspectives although mentoring involves faculty advisors as well as other doctoral students; therefore, future studies that investigate faculty advisors' perspectives and extend the research scope to other disciplines are necessary.

Nevertheless, the author presented the characteristics of faculty mentors, which are comprehensive and specific to doctoral education. These characteristics will enable faculty advisors to reflect on and improve their mentoring practices. Therefore, the current study offers a guideline for the accomplishment of doctoral mentoring at a concrete level, rather than vaguely recommending that faculty advisors better support the professional and psychosocial development of their students. Faculty advisors could reference the list of characteristics suggested in this study in self-evaluation, or, doctoral students may use it to evaluate their advisors.

A faculty mentor should be a well-rounded person who possesses both the professional and interpersonal characteristics identified in the study. Some faculty advisors may be experienced/knowledgeable but might not be approachable, or, they might be accessible to students but not be easy to talk to; both will result in incomplete mentoring. Similarly, it would be difficult to say that a faculty advisor is a mentor if s/he is not interested in the student's future career,

although s/he has other appropriate characteristics. Thus, in order to achieve ideal mentoring, all the characteristics should be complementary. As faculty advisors put consistent effort into cultivating these characteristics, they will be closer to becoming mentors and achieving true mentorship with their students. In a following paper, the author will relate background characteristics of doctoral students to their perception of mentors.

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