



Developmental Stages of Good Mentors: Comparison between Novice and Experienced Mentors

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Abstract

The present study focuses on mentor teachers' awareness before and after supervisory experiences of mentees' teacher portfolios for professional development. In the context of developing mentors' communication skills and reviewing strategies through the course of a three-day intensive workshop, six consecutive meetings were conducted. The data of the discussions and reports among 11 mentors (three novice mentors, four experienced mentors, and four supervisory mentors) were recorded and analyzed by quantitative content analyses method using the Tiny Text-Mining tool (TTM). In collected textual data, 1,484 different types of words were found during mentors' reflections on their consultations with their mentees. The analysis revealed the following three points: (1) distinctive words appeared on the reports of the experienced mentors who could explicitly reflect on and explain their difficulties and satisfaction as mentors; (2) novice mentors often confessed their worries and difficulties about their mentoring styles and communication skills; (3) regardless of their mentoring experiences, several mentors often mentioned mentees' progress during teaching portfolio creation and consulted the mentoring process to discover the mentees' educational philosophy.

Keywords: Faculty learning, Interdisciplinary collaboration, Quantitative research, Professional development.

1. Introduction

In the context of education, it is commonly accepted that a mentor teacher leads, guides, and advises another teacher who is less experienced in a work situation characterized by mutual trust and belief. Mentoring is often identified as an essential step in achieving career success. Therefore, mentors working with mentees must work toward competence in areas such as consulting, mediation, negotiation, intervention and clinical supervision (Koki, 1997; Ramani et al., 2006). Nevertheless, not all mentors recognize the value of the mentoring relationship. Since mentors and educators in specialized areas rarely receive training on the mentoring process, they are often ill-equipped to face challenges when taking on a major mentoring responsibility (Ramani et al., 2006). The actual learning processes of individual faculties that occur as a result of peer mentoring have not been described in detail (Castle, 2006; Clarke & Hollingsworth, 2002; Zwart et al., 2008).

The aim of the present study is to uncover different mentors' awareness of effective mentoring between novice and experienced mentors participated in teaching portfolios workshop at Osaka Prefecture University College of Technology in 2016. The foregoing study revealed that there was a difference in the perceptions of mentorship between novice and experienced mentors. However, only a few studies have explored the influence of experiences on mentors' perceptions. Consequently, whether the same findings will be revealed in the analysis of reliable quantitative data using the Text-Mining tool.

2. Previous Studies on Peer-Mentoring

Since 2009, Osaka Prefecture University College of Technology has conducted an intensive three-day seminar guided by mentor teachers to create teaching portfolios. It is designed to engage mid-career faculty members in the theory, practice, and scholarship of teaching and learning and to establish and support a faculty community of practice that provides mentorship and leadership in higher education (Kato, 2013; Kato, 2014; Kato, Hogashida, Kaneda, Kitano, Furuta et al., 2018; Kato, 2019). Their mentors also have opportunities to consult with a supervisor who has vast experience in teaching and mentoring different levels of trainees at peer-support "mentor meetings."

Previous studies have analyzed discussions at the final mentor meeting by employing the Steps for Coding and Theorization (SCAT) method, which is a sequential, thematic, qualitative data-analysis technique (Otani, 2008; Otani, 2011). With SCAT, the authors have anecdotally reported that mentors encounter the following six categories: [Reflection on immature mentor], [Waiting for mentee's awareness], [Education data collection], [Recognizing mentee's growth], [Leadership skills], and



[Values of TP]. In unbalanced mentee–mentor relationships, in particular, novice mentors become anxious and refrain from asking questions or advising older mentees, but rather content themselves with merely listening to their stories (Kato et al., 2018).

Learning from mentoring experiences – related data contained seven subcategories and two categories. Category 1 [reflection on immature mentor] included the following four subcategories: <difficulties of human relations >, <inductive approach>, <self-awareness of immaturity>, and <no sense of accomplishment> (Kato et al., 2018).

The other study, designed as a quantitative content analysis, intended to explore how mentors perceive mentorship as part of professional development and how they evaluate their own mentoring experiences (Kato, 2019). The author focused on discussions at the final meeting by analyzing with TTM method. Differences among three groups of mentors, namely, novice, experienced, and supervisory were identified. Although previous exploratory studies (Kato et al. 2018) yielded significant insights into individual mentors' awareness toward mentorship, concerns have been raised that mentor experiences may influence the difficulties and personal satisfactions they experience while mentoring. An enhanced understanding of the perceptions of mentorship may help develop the professional development that will foster diversity among future academic educators and researchers in higher educational institutions.

3. Method

3.1 Participants

Nine mentors and two supervisors participated in this project and were divided into two groups: namely, Group A and Group B. Table 1 presents the distribution of the participants according to their mentoring experience, academic background, and affiliation. Among the eleven mentors, three were novice mentors who had never worked with mentees before.

Table 1
Mentors' Profiles

Group	Mentor (Age)	Mentoring experience	Academic background	Mentors' Affiliation
A	A* (Fifties)	More than five times	Chemistry	Technical College
	B** (Forties)	More than five times	Chemistry	Technical College
	C (Forties)	Four times	Mechatronics	Technical College
	D (Forties)	First time	Mechanical engineering	Technical College
	E (Thirties)	First time	Education	University
B	F* (Fifties)	More than five times	Educational technology	University
	G** (Fifties)	More than five times	Mechatronics	Technical College
	H (Fifties)	More than five times	Mathematics	Technical College
	I (Forties)	More than five times	Information Science	Technical College
	J (Forties)	Three times	Chemistry	Technical College
	K (Thirties)	First time	Chemistry	Technical College

(* supervisor, ** coordinator)

3.2 Data Collection

Two group discussions were conducted and recorded with the participants' permission. Although Group A recorded discussions and reports at all six peer-mentor conferences, Group B only recorded their discussions during the final meeting on August 10, 2016. In the group discussions, a supervisor acted as a facilitator and encouraged the participants to reflect on their mentoring process and the changes they were aware of prior to and after the mentoring experience. The questions were intended to elicit the mentors' awareness of what their role as a mentor entailed and what problems and difficulties they experienced during mentoring. The supervisors as interviewers primarily addressed the mentors' perceptions of their learning from the mentoring process and asked them to describe the mentoring process. The author transcribed audio-recorded data after the meetings.

3.3 Data Analysis

In the context of developing mentors' communication skills and reviewing strategies during the three-day intensive workshop, the data of the final discussion and reports, were analysed by the quantitative content analyses method of Tiny Text Miner (TTM), a free text-mining tool for the English and



Japanese languages (Matsumura & Miura, 2014). This technique enables Japanese language morphological analysis for the large text dataset in simple way.

The transcripts were prepared for analysis as follows. First, synonyms used in the final discussion and reports were identified and substituted with a single word so as to reduce the number of word categories and ensure more accurate results. Plural nouns were replaced by singular nouns to enable the software to recognize them as the same word. In addition, a proper noun was identified by its function and transformed into an appropriate noun with the same meaning. After this preliminary work, the software counted word frequencies generated by mentors in each discussion during the mentor meetings.

4. Results

The number of extracted words is displayed in Table 2. In total, 2,434 words were extracted from the data (40:58 min) of Group A and 2,493 words from that (63:25 min) of Group B. In total, 5,027 words were extracted from the transcripts of the two final meetings and 1,484 different types of words were found in their reflections on their consultation. Novice mentors devoted less to the reflective mentoring process discussion than the experienced and supervisory mentors. Table 2 summarizes the basic statistics of mentoring reports at the final meetings of both groups.

Table 2
Number of Extracted Words

Group	Num.	Num. of cases	Total num. of words	Different num. of words
Novice	3	55(11.1)	767(15.3)	292(19.7)
Experienced	4	214(43.1)	2434(48.4)	649(43.7)
Supervisory	4	227(45.8)	1826(36.3)	543(36.6)
Total	11	496(100.0)	5027(100.0)	1484(100.0)

*The counted frequencies with percentages given in parentheses.

To elucidate the major images of good mentorship, co-occurrence relation among the words was analysed based on a cluster analysis. First, morphological analysis was performed by using TTM, and the dataset for further multivariable analysis was created with frequency-used (more than one time) nouns, adverbs, and verbs. Then, a cluster analysis was performed to the created dataset. The statistical distance between the variables was calculated as a Euclidean distance, and a Ward method was used for clustering. Figure 1 showed the dendrogram of mentoring experiences.

As shown in Figure 1, the dendrogram can be roughly classified into four clusters, which are typically associated with mentors-mentees relationship during three-day intensive workshop.

Cluster 1 consists of the words indicating basic verbs that describe human activities such as say, do, and be. Cluster 2 consists of the words corresponding to the characteristics of excellent mentors such as "great", "can listen to (mentee's voice)" and "do what is possible to". Cluster 3 includes the words effective mentoring techniques such as "timing" and "share". Cluster 4 seems to consist of several sub-clusters, including 28 words. The statistical analysis on four clusters indicated that mentoring experiences influenced the awareness of characteristics of excellent mentors (cluster 2) and mentor excellence (cluster 3), and challenging process (cluster 4).

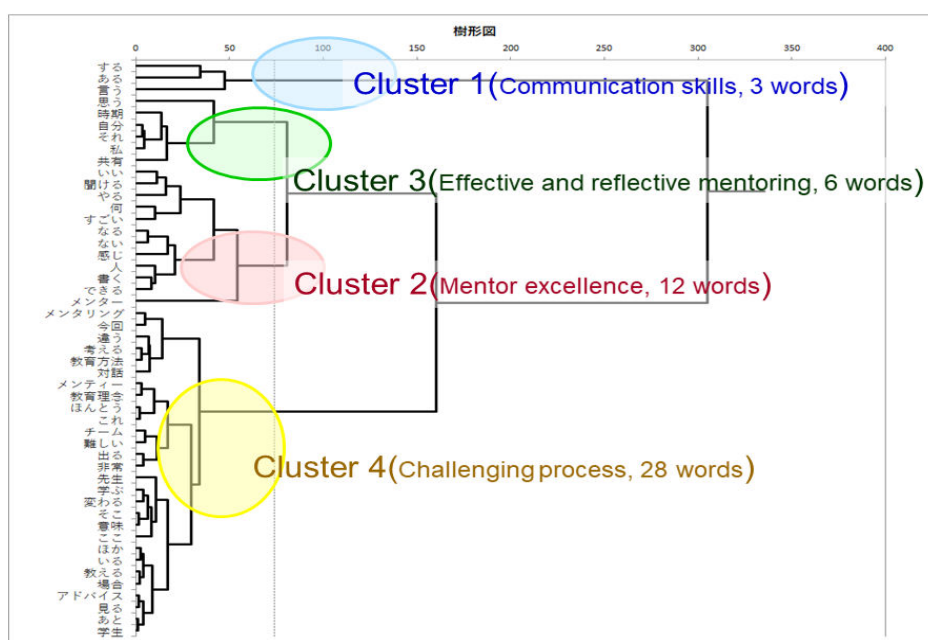


Figure 1
Number of Extracted Words

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