

## Cognitions of Expert Supervisors in Academe: A Concept Mapping Approach

By: Gülşah Kemer, [L. DiAnne Borders](#), [John Willse](#)

**This is the accepted version of the following article:**

Kemer, G., Borders, L. D., & Willse, J. T. (2014). Cognitions of expert supervisors in academe: A concept mapping approach. *Counselor Education and Supervision*, 53(1), 2-18.doi: 10.1002/j.1556-6978.2014.00045.x,

which has been published in final form at <http://dx.doi.org/10.1002/j.1556-6978.2014.00045.x>

**\*\*\*Reprinted with permission. No further reproduction is authorized without written permission from Wiley & the American Counseling Association. This version of the document is not the version of record. Figures and/or pictures may be missing from this format of the document.\*\*\***

### **Abstract:**

Eighteen expert supervisors reported their thoughts while preparing for, conducting, and evaluating their supervision sessions. Concept mapping (Kane & Trochim, ) yielded 195 cognitions classified into 25 cognitive categories organized into 5 supervision areas: conceptualization of supervision, supervisee assessment, supervisory relationship, supervisor self-assessment, and administration of supervision. Implications for future research and supervisor training programs are discussed.

**Keywords:** expert counseling supervisor | cognition | concept mapping

### **Article:**

The pivotal role of counseling supervision for counselor growth and effectiveness was emphasized in several seminal articles in the 1980s (e.g., Blocher, 1983; Loganbill, Hardy, & Delworth, 1982; Stoltenberg, 1981). Since then, a large body of research on various aspects of the supervisory process has been generated (Borders et al., 2011), with the research often focused on supervisors-in-training or relatively inexperienced supervisors (e.g., Borders & Fong, 1994; Luke, Ellis, & Bernard, 2011). Few researchers have studied more experienced supervisors, although experience is not necessarily a proxy for expertise (Borders, 1991; Worthington, 1987). Researchers in three studies selected supervisors because of their experience as well as their relevant scholarship (Neufeldt, Karno, & Nelson, 1996) or peer/senior professionals' nominations (Grant, Schofield, & Crawford, 2012; Nelson, Barnes, Evans, & Triggiano, 2008). Neufeldt et al. (1996) interviewed experts from several fields about their conceptualizations of supervisee reflectivity. In two other studies about managing supervision difficulties, expert supervisors reported thinking extensively about the challenges they faced with their supervisees through reflective practice (Nelson et al., 2008), as well as using relational,

reflective, confrontative, and avoidant interventions (Grant et al., 2012). Although these results were limited in scope in terms of supervisors' thinking, they also suggested that further investigations of supervisors' cognitions and cognitive structures could be a promising avenue for understanding the work of expert, or master, supervisors.

Experts think differently than their novice counterparts. Experts recognize hidden details within complex cases and process them systematically, whereas novices focus more on concrete knowledge and store information in the form of propositions (Glaser, 1985). Glaser and Chi (1988) summarized seven key characteristics of experts: (a) excel mainly in their own domains; (b) perceive large, meaningful patterns in their domains; (c) are faster than novices at performing the skills of their domain and quickly solve problems with little error; (d) have superior short- and long-term memory; (e) see and represent a problem in their domain at a deeper (more principled) level; (f) spend a great deal of time analyzing a problem qualitatively; and (g) have strong self-monitoring skills. To understand how experts develop and move toward these cognitive performances, Anderson (1983) asserted that the distinction between two specific types of knowledge is critical: declarative and procedural knowledge. Declarative knowledge is factual and stored in propositions (e.g., "Persons with depression show low mood"), whereas procedural knowledge is functionally organized into if-then statements (e.g., "If my client presents feelings of hopelessness and loneliness accompanied by low mood, then my client is depressed"). In a problem situation, novices are more inclined to engage their declarative knowledge, whereas experts use more procedural knowledge (Anderson, 1983).

How these types of knowledge inform the problem situation is related to the problem structure (Simon, 1973). In some problem situations, it is possible to set clearly defined goals that lead to potential solutions with evident solution procedures. However, not all problems and their solutions are considered to be well structured. Real-life problems, particularly the ones involving individuals and groups, generally are defined as ill structured (Simon, 1973). The majority of problems in the social science fields are ill structured, with no one accepted solution because of multiple perspectives of the problem situation.

Counseling and supervision are two of the social science fields that involve ill-defined and ill-structured problems and practices. This view has fascinated some researchers who have attempted to describe expertise in counseling (Eells, Lombart, Kendjelic, Turner, & Lucas, 2005; Hillerbrand & Claiborn, 1990; Jennings & Skovholt, 1999). For example, Eells et al. (2005) reported that expert therapists excelled in case formulations. In comparison with experienced and novice therapists, the experts recognized large patterns of information and used these patterns to create more complex, elaborated, and nuanced conceptualizations. They were also more likely to use a consistent and systematic process that was interpreted as an evidence of a priori cognitive structure that informed their conceptualization process. These studies provided insights into expert counselors. To date, however, no similar studies of expert supervisors' thought processes have been reported.

It is an appropriate time to study expert or master counseling supervisors' cognitions for at least three reasons. First, supervision knowledge and practices have greatly expanded since the seminal conceptual articles published in the 1980s and the pioneer empirical works based on them. Although early supervision models have been partially supported, they have also been described as simplistic (Ellis & Dell, 1986; Holloway, 1987). More recently, more complex aspects of effective supervision have been described (Bernard & Goodyear, 2014; Borders & Brown, 2005; Milne, 2009). For example, Borders (2009) discussed the necessity for subtle and nuanced supervision practices to meet the individualized needs of supervisees. Second, supervisor development models (e.g., Alonso, 1983; Hess, 1986; Stoltenberg & McNeill, 2010; Watkins, 1993) tend to focus on beginning supervisors; descriptions of advanced supervisors are limited. Third, since the 1980s, supervisor training programs have become more numerous and have been required for doctoral students in accredited counselor education programs (Council for Accreditation of Counseling and Related Educational Programs, 2009) since 1988 (Dye & Borders, 1990). As a result, there is now a group of professionals in academic settings who have devoted a number of years to practicing, teaching, and researching supervision. Thus, it is likely that there are now sophisticated supervisors who are able to attend to the complexity and subtlety of the distinctive nature of supervision. These supervisors not only would be competently skilled in supervision interventions, but also would be knowledgeable about the intricacies of the supervision process. They would likely exhibit expert-level cognitive abilities regarding the practice of supervision and provide a window into the cognitive functioning of expert supervisors. Knowledge of expert supervisors' cognitions could provide valuable insights for practicing supervisors as well as those designing supervisor training programs.

Thus, the purpose of this study was to identify and describe expert supervisors' cognitions and cognitive structures in preparing for, conducting, and evaluating their supervision sessions. We sought to identify which specific supervision topics (e.g., supervisee, client, interventions, models, relationship) were considered by the expert supervisors in their supervision practices and how those thoughts were organized. We focused this study on expert supervisors in academic settings because we found little relevant research on site supervisors of counseling interns and no research on practitioners supervising counselor licensure applicants or licensed counselors on staff; the latter two groups typically have had no supervision training (Bernard & Goodyear, 2014; Borders et al., 2011).

## **Method**

### **Participants**

We invited a national, geographically dispersed and culturally diverse group of 44 expert counseling supervisors (see the Procedure section for criteria) to participate. Eighteen (40.9%) supervisors participated in at least one round of the concept mapping steps; four attended all three rounds, 12 attended the first and second rounds, two attended the second and third rounds, two attended just the second round, and one participant completed only the first round of data

collection. In brief, 14 participants were involved in the first round of data collection, 17 in the second round, and six in the third round. Of the 18 participants, 10 (55.6%) were female. With respect to race/ethnicity, 16 participants identified as White (88.9%), one as Asian/Pacific Islander (5.6%), and one as South Asian (5.6%). (Percentages do not total 100 because of rounding.) Participants' average age was 52.89 years ( $SD = 11.76$ ). All had doctoral degrees—15 in counselor education (three primarily identified with school counseling, 10 identified with clinical mental health counseling, and two identified with both) and three in counseling psychology—and all worked as faculty members.

## **Procedure**

We performed concept mapping, a mixed methods approach, to explore the expert supervisors' cognitions and cognitive categories regarding their supervision sessions. Concept mapping is an integrated approach that identifies knowledge structures of individuals or small homogeneous groups of individuals (Goodyear, Tracey, Claiborn, Lichtenberg, & Wampold, 2005). We considered concept mapping a good fit for the present study because it allowed us to involve stakeholders (i.e., expert counseling supervisors) in a collaborative process from initial idea generation to interpretation of the results (Kane & Trochim, 2007). Thus, expert supervisors crafted the content for the entire conceptualization by first providing cognitions regarding their supervision sessions, then assigning those cognitions into cognitive structures, and finally reshaping the results through interpretation and processing. The process of concept mapping consists of six steps: (a) preparation, (b) generation of statements, (c) structuring of statements, (d) representation of statements, (e) interpretation of maps, and (f) utilization of maps (Kane & Trochim, 2007). The procedures for the current study included the first five steps.

*Step 1: Preparation.* We selected participants and developed the focus of the conceptualizations to be described by the experts (Kane & Trochim, 2007). Participant selection is one of the most important tasks of concept mapping (Kane & Trochim, 2007), so we conducted a purposeful selection of expert supervisors. Expert supervisors should be knowledgeable, experienced, and influential in the area of counseling supervision. Thus, our criteria for being considered as an expert participant included (a) a doctoral degree in either counselor education or counseling psychology and (b) experience in teaching and supervising student counselors and/or supervisors, plus (c) extensive involvement in scholarly activities in supervision and/or (d) being awarded or nominated as a distinguished mentor, counselor educator, and so on. To identify experts meeting the criteria, we created a list of persons known to us based on our knowledge of the supervision literature, presentations at national and international supervision-related conferences, experience conducting supervision and training supervisors, and involvement in supervision projects (e.g., Association for Counselor Education and Supervision Best Practices in Clinical Supervision; Borders et al., 2011). Then, we reviewed their personal websites to confirm that they met the criteria. To be considered eligible, they had to meet the first three criteria (i.e., Criteria a, b, and c). As a result, we identified 44 persons and invited them by e-mail to participate in the study.

Participants had provided supervision and/or trained supervisors for an average of 20.81 years ( $SD = 10.57$ ). In terms of their supervisee profiles, eight (44.4%) said that they typically supervised master's students in practicum or internship, doctoral students in clinical practicum or internship, and doctoral students completing a supervision practicum or internship; five (27.8%) indicated involvement in three of these supervision activities, three (16.7%) indicated involvement in two of the activities, and two (11.1%) reported involvement in one of the activities. The 18 participants had published nine books (not counting each edition of a book), 56 book chapters ( $M = 3.73$ ,  $SD = 4.03$ ), and 222 peer-reviewed articles ( $M = 12.33$ ,  $SD = 12.93$ ) on supervision; they had made 316 professional presentations ( $M = 18.59$ ,  $SD = 18.84$ ), conducted 50 workshops ( $M = 8.33$ ,  $SD = 6.41$ ), and received 43 award nominations/recognitions for supervision or mentoring ( $M = 2.69$ ,  $SD = 1.82$ ).

Supervisors' supervision-related thoughts can involve anything from planning thoughts to in-session and postsession evaluation of supervision sessions. Thus, to capture the full range of supervision-related thoughts, we determined that the conceptualization task would need to include thoughts while planning, conducting, and evaluating supervision sessions.

*Step 2: Generation of statements.* Expert counseling supervisors generated statements that represented their thoughts via an online open-ended response survey. First, we sent personal invitation e-mails describing the aim and time line of the study with a link to the online survey (including informed consent and demographic forms) to the potential participants. The survey included the focus statement for the statement generation process:

Please attempt to generate SHORT PHRASES OR SENTENCES that describe the factors you take into consideration while planning for, conducting, and evaluating your supervision sessions. You may consider your past and current experiences as a supervisor with the supervisees you believe you worked with very well as well as those who challenged you. You may also reflect on how you would imagine an “expert” supervisor would think while planning for, conducting, and evaluating her or his supervision sessions. In the box below, please fill in the blank of the following prompt with AS MANY STATEMENTS AS POSSIBLE based on your personal experience and ideas of the factors you take into consideration in your supervision sessions. Please be AS CLEAR AND CONCRETE AS POSSIBLE.

We also provided participants with a brainstorming prompt (“One specific thing I think about in planning for, conducting, and evaluating my supervision sessions is \_\_\_\_\_.”) to assist them in generating statements that reflected concrete ideas, a procedure consistent with concept mapping. We asked them to provide contact information for mailing packets for the second round of data collection and to indicate their willingness to attend an online focus group session (Step 5) about the concept mapping procedure.

In the first round of the data collection process, 14 participants generated 479 statements. We then edited and synthesized the 479 statements. We eliminated duplications and similarities as

well as statements involving supervision of supervision, group supervision, or triadic supervision content, because individual supervision was the focus of the current study. We distilled the original 479 statements into an initial list of 194. Then, an external auditor reviewed the original statements and the synthesized statements to make sure that all the original statements were represented in the list and checked for duplications and clarity of wording. The final list included 195 statements. Although the planned and practical number of statements was around 100 (Kane & Trochim, 2007), the unique nuances and idiosyncrasies of the conceptual frame of the statements were also important to maintain. Therefore, we retained the large number of statements beyond the planned number.

*Step 3: Structuring of statements.* In the second round of data collection, we mailed packets to participants. We printed each statement on a small card and asked participants to sort the statements (cards) into groups on the basis of their conceptual similarity (Kane & Trochim, 2007). The guidelines in sorting the statements were the following:

One statement can only belong to one stack and can be a stack/group by itself, and you will create more than one stack. Please put each stack/group into an envelope once you finish the sorting process and also label the stack/group on the envelope.

Seventeen of the 18 experts (14 from the first round and four additional participants) sorted the 195 statements on the basis of their conceptual similarity. Across participants, the smallest stack contained five statements and the largest had 29 ( $M = 18.35$  stacks). We then used the sorting data to obtain the representation of the expert counseling supervisors' cognitions and cognitive categories.

*Step 4: Representation of statements.* We used statistical analyses to create conceptual representations of the expert supervisors' cognitions and cognitive categories. Initially, we used the statistical program R (R Development Core Team, 2011). First, we created a group similarity matrix (GSM). After receiving the sorted documents, we combined the data to estimate the similarity among statements across participants (Kane & Trochim, 2007), which was determined by the frequency in which participants grouped the statements into conceptually similar stacks in the sorting task. That is, the number of times statements were grouped together became the measure of similarity of those statements.

Second, using that GSM as input, we conducted a two-dimensional, nonmetric multidimensional scaling (MDS) procedure to obtain an initial visual representation (the point map) of the data. This point map showed the distribution of each statement on a two-dimensional space based on its conceptual similarity to other statements. Although the stress value (testing fit of the two-dimensional solution) of 0.313 was above the recommended value of 0.285 (Kane & Trochim, 2007), it was within the range of yielded values of approximately 95% of concept mapping studies (0.205–0.365; Kane & Trochim, 2007). In addition, because the stress value is

sensitive to slight movements of statements on a map (Kane & Trochim, 2007), the large number of statements in the present study may have affected the stress value result.

Finally, using the coordinate values of the two dimensions obtained from the MDS analysis, we performed a hierarchical cluster analysis, which produced a cluster tree (dendrogram). We used the cluster tree to determine the number of clusters on the preliminary point cluster map (as suggested by Kane & Trochim, 2007). On the basis of the grouping of statements on the cluster tree, we identified 26 preliminary clusters, which we drew onto the point map to create a preliminary point cluster map as a preparation for the focus group.

*Step 5: Interpretation of maps.* In the third round of data collection, six of 13 participants who indicated interest in the focus group session met in a 90-minute online focus group to discuss the preliminary point and cluster maps. The other experts reported scheduling conflicts with the focus group time. In concept mapping, there is no strict limit on the number of participants involved in the different rounds (Kane & Trochim, 2007). We considered the six (33.3%) a sufficient subgroup of the 18 participants; the six were representative of the total group (e.g., included school and clinical mental health supervisors, included three women and three men). Prior to the focus group, we sent the maps and preliminary cluster list via e-mail to the participants. After we explained each map, participants discussed assignment of statements to the 26 preliminary clusters. We specifically asked participants to comment on the reasonableness of the statement groupings in each preliminary cluster, especially any statements that seemed oddly placed, and to engage in a group discussion for negotiating the proper labels for each cluster (Kane & Trochim, 2007). The goal of concept mapping is not to produce a statistically optimal grouping of the statements, but to use the MDS and clustering procedures to organize stakeholders' thoughts from Steps 2 and 3 sufficiently so that the group can reach consensus about a meaningful set of cognitive categories/domains. Participants collaboratively discussed each cluster, its statements, and cluster labels in detail. They determined 25 clusters with two outlier or by-itself-cluster statements (see Table 1) as the final cognitive categories/domains of their supervision thoughts. We drew a final point cluster map as the visual display of the 25 clusters and the two outlier or by-itself-cluster statements (see Figure 1).

**Table 1. Descriptions of Expert Supervisors' Cognitive Categories: Final Cluster List**

<b>Cluster</b>	<b>Description</b>
Conceptualization of Supervision and Intervening	
Cluster 1: Supervisor's goal setting/agenda setting	Includes cognitions/thoughts regarding supervisor's goal and agenda setting for the supervision session as well as his or her supervision with the supervisee for the rest of the semester.

<b>Cluster</b>	<b>Description</b>
Cluster 2: Planning and managing supervision interventions	Includes cognitions/thoughts regarding intervention planning as well as integration of those cognitions/thoughts in the idiosyncratic nature of the session.
Cluster 3: Conceptualizing the work	Includes cognitions/thoughts regarding supervision models and appropriateness of those for the session.
Cluster 4: Choice points/in-session decisions	Includes cognitions/thoughts regarding intentional/effective decision making before or, more important, during the supervision session to meet the supervisee requests and needs.
Cluster 5: Needing immediate attention	Includes cognitions/thoughts regarding critical issues requiring immediate and specific attention during the supervision session.
Cluster 6: Helping the supervisee attend to and pick up on important things in his or her counseling	Includes cognitions/thoughts regarding positive “pushing” the supervisee and modeling for improvement within supervisee's own pace.

---

#### Assessment of the Supervisee and His or Her Work

Cluster 7: Assessing the intrapersonal and cognitive experiences of the supervisee	Includes cognitions/thoughts regarding supervisor's assessment of supervisee, such as supervisee's cognitive-emotional abilities and functioning as a practitioner as well as an individual.
Cluster 8: Supervisee's professional behaviors	Includes cognitions/thoughts regarding necessary professionalism indicated by the supervisee.
Cluster 9: Supervisee development	Includes cognitions/thoughts regarding supervisee's developmental level, appropriateness, and needs.
Cluster 10: The client and the counseling session	Includes cognitions/thoughts regarding specific client- and/or counseling-related considerations in the reviewed session.
Cluster 11: Systemic considerations	Includes cognitions/thoughts regarding supervisee's functioning ability within systems at the site (primarily school).

<b>Cluster</b>	<b>Description</b>
Cluster 12: Supervisee in relationship to the client	Includes cognitions/thoughts regarding supervisee's personal and professional competencies that could hinder/improve counseling relationship.
Cluster 13: Supervisee's intervention skills	Includes cognitions/thoughts regarding supervisee's basic and advanced intervention skills.
Cluster 14: Supervisee's conceptual skills	Includes cognitions/thoughts regarding supervisee's skills to recognize and integrate knowledge about the client.
Cluster 15: Supervisee's reflective process	Includes cognitions/thoughts regarding supervisee's ability and engagement in reflective practice.
Cluster 16: Understanding the client	Includes cognitions/thoughts regarding supervisee's client.
<hr/>	
<b>Supervisory Relationship</b>	
Cluster 17: Parameters of evaluation	Includes cognitions/thoughts regarding supervisor's professional responsibilities.
Cluster 18: Supervisee's response to feedback	Includes cognitions/thoughts regarding supervisee's receptivity to feedback.
Cluster 19: Collaboration with the supervisee	Includes cognitions/thoughts regarding supervisor's collaboration with the supervisee to improve supervision effectiveness.
Cluster 20: Supervisor's experience of the working relationship	Includes statements regarding supervisor's experience of supervisory relationship, awareness of differences, response/internal reactions to supervisee, being human/genuine, cultural considerations in supervisory relationship, view of supervisee's experience of the supervisory relationship.
Cluster 21: Supervisee's receptivity to supervision	Includes cognitions/thoughts regarding supervisee's readiness and/or resilience to be out of his or her comfort zone.
<hr/>	

**Cluster****Description**

## Supervisor Self-Assessment and Reflection

Cluster 22: Supervisor's self-reflective process

Includes cognitions/thoughts regarding supervisor's reflection on his or her work with the supervisee, specifically, reflections that could be made through “what” and “how” questions.

Cluster 23: Additional supervisor reflections about working with a challenging supervisee

Includes more specific and nuanced reflective cognitions/thoughts regarding supervisor's work with challenging supervisee.

Cluster 24: Supervisor's assessment of and reflection on his or her work

Includes cognitions/thoughts regarding supervisor's self-awareness and reflective practice.

---

**Administration and Logistics of Supervision**

Cluster 25: Administrative considerations

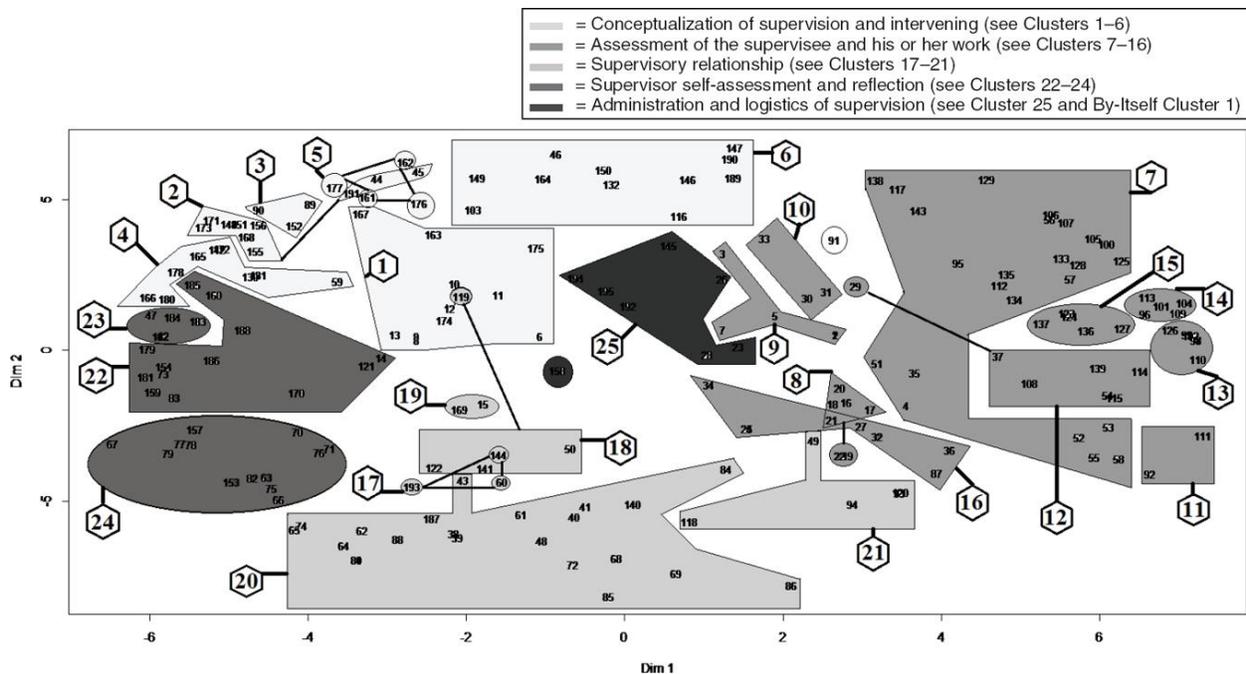
Includes cognitions/thoughts regarding administrative and logistical necessities.

Outlier/By-Itself Cluster 1

Knowledge of the supervisee's site (e.g., how agency is organized, what type of school counseling program is in place)/context of the supervisee's site.

Outlier/By-Itself Cluster 2

Is the desired change reflected in supervisee's next sessions?



**Figure 1.** Expert Supervisors' Cognitive Categories: Point Cluster Map

*Note.* Numbers in hexagons refer to clusters; all other numbers refer to items (with Item 91 = By-Itself Cluster 2 and Item 158 = By-Itself Cluster 1). Although hosted by the assessment of the supervisee and his or her work region, By-Itself Cluster 2 appeared as a separate item and was not included in this region. The full list of items for each cluster is available from the first author. Dim 1 = Dimension 1; Dim 2 = Dimension 2.

### Testimonial Validity

The interpretation sessions of concept mapping are a means of building testimonial validity into the research design (Bedi, 2006). By involving participants in the entire data collection process and obtaining their interpretation of the concept maps and statistical results, researchers are able to check their own interpretation of the data for potential bias. In this way, the results represent participants' experiences and views about the conceptual domain.

### Results

The expert supervisors produced 195 cognitions/thoughts of numerous supervision components regarding the process of preparing for, conducting, and evaluating their supervision sessions. These cognitions/thoughts were organized into 25 cognitive categories, presented in Table 1 with their definitions. The visual representation of the cognitive categories in the cluster map (see Figure 1) revealed five different regions involving conceptually similar cognitive categories.

The right part of the cluster map depicted in Figure 1 could be described as the assessment of the supervisee and his or her work region. This region included the clusters of assessing the

intrapersonal and cognitive experiences of the supervisee, supervisee's reflective process, supervisee's professional behaviors, supervisee development, supervisee's conceptual skills, supervisee's intervention skills, systemic considerations, supervisee in relationship to the client, the client and the counseling session, and understanding the client. Supervisee's receptivity to supervision appeared to be a transition cluster between the assessment of the supervisee and his or her work region and the supervisory relationship region in the middle bottom of the map. The assessment of the supervisee and his or her work region also hosted By-Itself Cluster 2 (Is the desired change reflected in supervisee's next sessions?). However, By-Itself Cluster 2 appeared as a separate item and was not included in this region.

From the bottom to the middle of the map, a supervisory relationship region appeared to be clear. This region included the following clusters: supervisor's experience of the working relationship, collaboration with the supervisee, supervisee's response to feedback, and parameters of evaluation. Supervisor's experience of the working relationship appeared to have subclusters. In particular, supervisor's response/internal reactions to supervisee and being human/genuine subclusters emerged as transitions to another region, supervisor self-assessment and reflection.

On the bottom left to middle left part of the map, the supervisor self-assessment and reflection region included the clusters of supervisor's assessment of and reflection on his or her work, supervisor's self-reflective process, and additional supervisor reflections about working with a challenging supervisee. Again, another cluster, choice points/in-session decisions, appeared to be a transition between the supervisor self-assessment and reflection region and the conceptualization of supervision and intervening region.

From the upper left corner to the upper middle appeared to be a conceptualization of supervision and intervening region. This region included the clusters of planning and managing supervision interventions, conceptualizing the work, needing immediate attention, supervisor's goal setting/agenda setting, and helping the supervisee attend to and pick up on important things in his or her counseling.

Finally, the middle part of the map had an administration and logistics of supervision region. An administration considerations cluster and By-Itself Cluster 1—knowledge of the supervisee's site (e.g., how agency is organized, what type of school counseling program is in place)/context of the supervisee's site—were included in this region.

## **Discussion**

The present study yielded academic expert supervisors' cognitions and cognitive categories covering a wide range of aspects of the supervision process: conceptualization of supervision and intervening, assessment of the supervisee and his or her work, supervisory relationship, supervisor self-assessment and reflection, and administration and logistics of supervision. On the visual representation of the data, these areas of thinking were organized on the basis of their conceptual relation to one another.

Expert supervisors in this study appeared to have some of the key characteristics of experts in Glaser and Chi's (1988) study. In particular, the number of supervision thoughts they generated gave an indication of how the experts excelled in their own domain, counseling supervision. Moreover, expert supervisors' ability to put the excessive number of statements (cognitions) into groups (cognitive categories) and willingness to spend considerable time on sorting (as well as join the focus group session discussions) are other indications of expert performance, namely, perceiving large, meaningful patterns in counseling supervision and spending considerable time analyzing a problem qualitatively. In addition, the supervisor self-assessment and reflection region mirrors another key characteristic of experts: strong self-monitoring skills.

Reflective process experts in the study by Neufeldt et al. (1996) suggested that counseling supervisors should be good role models of self-reflection for their supervisees, and participants in studies by Nelson et al. (2008) and Grant et al. (2012) exhibited this trait. Similarly, experts in the present study reported high levels of self-reflection, including being aware of their limitations, biases, and possible countertransference issues; seeking consultation and supervision whenever necessary; and keeping a constant check on themselves with respect to being nonjudgmental or pondering what was bothering them about the supervisee. Moreover, experts reported a willingness to be human, genuine, honest, and transparent; own their mistakes; and share authority and responsibility with their supervisees, even when it was difficult to do so. Across these studies, then, it is evident that a notable characteristic of advanced and expert supervisors' thinking is their self-assessment, self-reflection, and self-evaluation. Expert counseling supervisors evaluate their own work transparently and accurately, reflecting an awareness of their own strengths and limitations.

Expert supervisors' thinking also involved “Serving in the gatekeeper role” and “Doing what is ‘the right thing to do’ no matter how much I squirm (or the supervisee squirms)—with compassion.” It appears that even expert supervisors experience or have discomfort with making hard decisions and acting on them, even when they believe that it is necessary to do, a finding that is congruent with those of previous studies (Grant et al., 2012; Nelson et al., 2008).

Several other characteristics of the expert supervisors' cognitions should be highlighted. First, their assessments of their supervisees were comprehensive, including consideration of the supervisees' conceptual and intervention skills, theoretical orientation, professionalism, self-efficacy, self-awareness of potential blind spots and biases, accuracy in assessing the client and the counseling session, awareness of relationship dynamics, themes and patterns in the supervisees' work, willingness to take risks, level of cognitive complexity, developmental level, ability to reflect on their work, as well as areas that needed to be “stretched.” Second, similar to the expert therapists in Eells et al.'s (2005) study, the experts in the current study were quite intentional, both in planning and in conducting the supervision sessions. It appeared that they had established guidelines for determining priorities for the session. For example, the experts seemed first to consider any site concerns, ethical and legal issues, or crises that needed immediate attention, thoughts that illustrated their attention to client welfare. In choosing what to cover in

the supervision session, they appeared to give priority to themes and patterns in the supervisees' work as well as what change was most needed to better meet the client's needs. They considered their supervisees' long-term goals as well as their requests for feedback on a particular session, wondered how to incorporate their own feedback into those goals and requests, contemplated what supervisory interventions (e.g., role play, clips of the recorded counseling session, Interpersonal Process Recall [Kagan, 1980]) would be most appropriate, and considered how they might use themselves as tools for intervening. Indeed, helping supervisees achieve their own insights and become more reflective seemed to be high priorities. Clearly, the experts spent considerable time reviewing supervisees' counseling sessions and preparing for supervision sessions. The experts also demonstrated intentionality and a high level of awareness during supervision sessions, including their supervisees' reactions and receptivity to feedback, their own internal reactions, parallel process, and other session dynamics. They reported ongoing decision making during a session about issues such as whether their feedback was balanced, whether to self-disclose, what the supervisee's most immediate need seemed to be, and how to end the supervision session. Finally, the experts gave much attention to the supervisory relationship, reflecting the emphasis on the centrality of the relationship reflected in current literature (e.g., Bernard & Goodyear, 2014; Borders & Brown, 2005). They desired to achieve qualities of the counseling relationship (e.g., genuineness, empathy, empowerment, cultural awareness, collaboration) while recognizing the impact of the evaluative nature within the relationship.

Few of the expert supervisors' cognitions/thoughts represented popular supervision models and their dimensions, and none of the cognitive categories were labeled after a specific supervision model. Expert supervisors implied supervision models as general conceptual tools in the conceptualizing the work cognitive category. For example, Bernard's (1997) Discrimination Model was named in one statement (e.g., "From the Discrimination Model, what are the most appropriate roles and focus areas for this session?"). However, the supervisee development cognitive category involved cognitions/thoughts (e.g., "Supervisee's potential growth areas for further development," "Supervisee's progress toward those goals to date") that presented a more individualized concept of development than are found in developmental models of supervision (Loganbill et al., 1982; Stoltenberg & McNeill, 2010). Similarly, the supervisor's experience of the working relationship cognitive category involved a broader conceptualization than Holloway's (1995) explanation of the relationship in her Systems Approach to Supervision Model. For example, in addition to general thoughts about the supervisory relationship, supervisors used self-monitoring and reflection to examine their internal reactions to supervisees within the supervision relationship.

Hence, although expert supervisors' thinking regarding their supervision sessions was somewhat connected to supervision models, thoughts were more complex and unique to each supervisor, who said that his or her thoughts were influenced by supervisee characteristics. This finding supports Ellis and Dell's (1986) claim that supervision models are simplistic descriptions of the supervisory process. Expert supervisors' thinking illuminated the contrast between the

(necessarily) concrete nature of supervision models and the nuanced and idiosyncratic nature of actual supervision work (Borders, 2009). From the perspective of the literature on expertise, expert supervisors' thinking seems to be based on supervision models (declarative knowledge), but built up with experience and study that is transformed into complex, nuanced, and functionally structured frameworks (procedural knowledge) as well as performances, which is more than what the models offer individually. Thus, it may be that supervision models are primarily useful and instructive for beginning supervisors to help them begin to build their own unique conceptualizations.

### **Limitations**

Results of the present study must be considered within the context of its limitations. Notably, we included no comparison groups of novice or experienced supervisors, nor supervisors in practice settings, limiting understanding of how experts' thinking is truly unique. Generalizability is limited to the demographics of the participants in this study, given that another group of expert supervisors fitting the same criteria might produce different maps of their work, particularly if that group was more diverse or included practitioners instead of only faculty members. In addition, selection of participants was based on academic criteria and indicators of performance expertise (e.g., scholarship, mentoring awards) rather than assessment of actual practice. Variations in the number of participants in each round should also be considered, although a majority of the experts contributed to at least two rounds. Variables not controlled in this study (e.g., years of supervisory experience, type of supervision training, focus of supervision research) may have influenced the expert supervisors' thoughts. Finally, the editing and synthesizing procedure of concept mapping might have misrepresented the original meanings of some statements and certainly reflected our and the auditor's perceptions.

### **Implications for Future Research and Supervision Practice**

The present study yielded questions to be answered in further research. Replication with other groups of expert supervisors (e.g., site supervisors of interns, practitioners supervising counselor licensure applicants or staff) is necessary, as well as a more diverse group. Comparison studies of novices' cognitions/thoughts with experienced and expert supervisors' cognitions/thoughts, as well as longitudinal studies, would illuminate the developmental process of becoming an expert supervisor. Within-group studies would also be informative, such as whether expert supervisors prioritize their cognitions/thoughts and cognitive categories differently when working with different types of supervisees (e.g., those at various developmental levels, those who are culturally different from the supervisor, those who are easy vs. challenging). Similar studies examining experts' cognitions about group and triadic supervision are also needed.

The findings from this study provide an initial understanding of what expert supervisors think; however, further exploration is needed to reveal more clearly how they think while planning, conducting, and evaluating their supervision sessions. Such studies would tap into several

characteristics of experts that could not be accessed by concept mapping (e.g., perform skills faster and solve problems more quickly and more accurately than novices, spend more time analyzing problems before acting). In particular, these studies could shed more light on how expert supervisors create guidelines for prioritizing their plans for upcoming supervision sessions and make moment-to-moment decisions about their direction during sessions. Case studies that follow experts' thoughts while planning, conducting, and evaluating a supervision session could be revealing of these more subtle and nuanced cognitions. Finally, the results could be subjected to a confirmatory approach (e.g., Likert-type survey) to determine whether these same structures are supported using a different methodology.

Our results also have implications for counseling supervisors and supervisor training programs. Supervision practitioners might consider regions and cognitive categories of expert supervisors' thinking as important components to include in their own considerations when planning, conducting, and evaluating their work with supervisees. They may want to pursue opportunities for self-reflective practice as well as transparency, not only for their own self-awareness and improvement but also for modeling reflective practice and transparency to their supervisees. Similarly, supervision educators may want to implement strategies in their curricula that trigger these areas of thinking in supervisor trainees' practices with their supervisees. Such strategies may be a key component toward developing expertise in counseling supervision.

More specifically, supervision educators can assess whether their curricula cover the areas of thinking identified by the experts, emphasize reflective practice, and highlight similarities and differences between counseling and supervision relationship dynamics (e.g., use of their counseling skills while acknowledging the evaluative nature of supervision). Similarly, supervision educators can help novices build on their counseling conceptualization skills for conducting comprehensive assessments of their supervisees. Through teaching and modeling, they can highlight the extensive preparation required for effective supervision. Clearly, they should emphasize the theme of intentionality throughout the supervision process—from first identifying one's goals for a session to planning an intervention to redirecting their focus as needed during sessions—as well as postsession evaluation and reflection that inform subsequent sessions (see Borders & Brown, 2005).

What is less clear is how to help novices develop the more nuanced cognitions reported by the experts, such as prioritizing while planning and redirecting during sessions, and to do so in ways that do not overwhelm the new supervisor. A developmental sequence seems implied, starting with the study of established models of supervision (e.g., Discrimination Model, developmental models) while noting their limitations (e.g., simplistic, linear); then applying these models during supervised practice; and, over time and through reflection, creating one's own nuanced guidelines for planning, conducting, and evaluating one's supervision sessions. Supervisor educators might suggest that novices remember parallels to their development as a counselor, from concrete thinking to more complex understandings of clients, their role, and the counseling process.

The results of this study provide an initial understanding of expertise in counseling supervision. Expertise has been described as a level of proficiency that novices can achieve (Chi, 2006). Thus, we hope that counseling supervisors and supervisor educators can use the results of this study in guiding their efforts to develop competent supervisors who have the foundation to become expert or master supervisors.

## References

- Alonso, A. (1983). A developmental theory of psycho-dynamic supervision. *The Clinical Supervisor*, **1**, 23–26.
- Anderson, J. R. (1983). *The architecture of cognition*. Cambridge, MA: Harvard University Press.
- Bedi, R. P. (2006). Concept mapping the client's perspective on counseling alliance formation. *Journal of Counseling Psychology*, **53**, 26–35. doi:10.1037/0022-0167.53.1.26.
- Bernard, J. M. (1997). The Discrimination Model. In C. E. Watkins Jr. (Eds.), *Handbook of psychotherapy supervision* (pp. 310–327). Hoboken, NJ: Wiley.
- Bernard, J. M., & Goodyear, R. K. (2014). *Fundamentals of clinical supervision* (5th ed.). Columbus, OH: Charles E. Merrill.
- Blocher, D. (1983). Toward a cognitive developmental approach to counseling supervision. *The Counseling Psychologist*, **11**, 27–34.
- Borders, L. D. (1991). Supervisors' in-session behaviors and cognitions. *Counselor Education and Supervision*, **31**, 32–47.
- Borders, L. D. (2009). Subtle messages in clinical supervision. *The Clinical Supervisor*, **28**, 200–209. doi:10.1080/07325220903324694.
- Borders, L. D., & Brown, L. L. (2005). *The new handbook of counseling supervision*. Mahwah, NJ: Erlbaum.
- Borders, L. D., DeKruyf, L., Fernando, D. M., Glossoff, H. L., Hays, D. G., Page, B., & Welfare, L. E. (2011). Best practices in clinical supervision. Retrieved from <http://www.acesonline.net/resources/>.
- Borders, L. D., & Fong, M. L. (1994). Cognitions of supervisors-in-training: An exploratory study. *Counselor Education and Supervision*, **33**, 280–293.
- Chi, M. T. H. (2006). Two approaches to the study of experts' characteristics. In K. A. Ericsson, N. Charness, P. Feltovich, & R. Hoffman (Eds.), *The Cambridge handbook of*

expertise and expert performance (pp. 121–130). Cambridge, England: Cambridge University Press.

Council for Accreditation of Counseling and Related Educational Programs. (2009). 2009 CACREP accreditation manual and application. Alexandria, VA: Author.

Dye, H. A., & Borders, L. D. (1990). Counseling supervisors: Standards for preparation and practice. *Journal of Counseling & Development*, **69**, 27–32.

Eells, T. D., Lombart, K. G., Kendjelic, E. M., Turner, L. C., & Lucas, C. (2005). The quality of psychotherapy case formulations: A comparison of expert, experienced, and novice cognitive-behavioral and psychodynamic therapists. *Journal of Consulting and Clinical Psychology*, **73**, 579–589.

Ellis, M. V., & Dell, D. M. (1986). Dimensionality of supervisor roles: Supervisors' perceptions of supervision. *Journal of Counseling Psychology*, **33**, 282–291.

Glaser, R. (1985). The nature of expertise (Occasional Paper No. 107). Retrieved from ERIC database. (ED261190).

Glaser, R., & Chi, M. T. H. (1988). Overview. In M. T. H. Chi, R. Glaser, & M. J. Farr (Eds.), *The nature of expertise* (pp. xv–xxviii). Hillsdale, NJ: Erlbaum.

Goodyear, R. K., Tracey, T. J. G., Claiborn, C. D., Lichtenberg, J. W., & Wampold, B. E. (2005). Ideographic concept mapping in counseling psychology research: Conceptual overview, methodology, and illustration. *Journal of Counseling Psychology*, **52**, 236–242.

Grant, J., Schofield, M. J., & Crawford, S. (2012). Managing difficulties in supervision: Supervisors' perspectives. *Journal of Counseling Psychology*, **59**, 528–541.

Hess, A. K. (1986). Growth in supervision: Stages of supervisee and supervisor development. *The Clinical Supervisor*, **4**, 51–67.

Hillerbrand, E., & Claiborn, C. D. (1990). Examining reasoning skill differences between expert and novice counselors. *Journal of Counseling & Development*, **68**, 684–691.

Holloway, E. L. (1987). Developmental models of supervision: Is it development? *Professional Psychology: Research and Practice*, **18**, 209–216. doi:10.1037/0735-7028.18.3.209.

Holloway, E. L. (1995). *Clinical supervision: A systems approach*. Thousand Oaks, CA: Sage.

Jennings, L., & Skovholt, T. M. (1999). The cognitive, emotional, and relational characteristics of master therapists. *Journal of Counseling Psychology*, **46**, 3–11. doi:10.1037/0022-0167.46.1.3.

- Kagan, N. (1980). Influencing human interaction—Eighteen years with IPR. In A. K. Hess (Ed.), *Psychotherapy supervision: Theory, research and practice* (pp. 262–283). New York, NY: Wiley.
- Kane, M., & Trochim, W. (2007). *Concept mapping for planning and evaluation*. Thousand Oaks, CA: Sage.
- Loganbill, C., Hardy, E., & Delworth, U. (1982). Supervision: A conceptual model. *The Counseling Psychologist*, **10**, 3–42.
- Luke, M. M., Ellis, M. V., & Bernard, J. M. (2011). School counselor supervisors' perceptions of the Discrimination Model of supervision. *Counselor Education and Supervision*, **50**, 328–343.
- Milne, D. (2009). *Evidence-based clinical supervision: Principles and practice*. Chichester, England: BPS Blackwell.
- Nelson, M., Barnes, K. L., Evans, A. L., & Triggiano, P. J. (2008). Working with conflict in clinical supervision: Wise supervisors' perspectives. *Journal of Counseling Psychology*, **55**, 172–184. doi:10.1037/0022-0167.55.2.172.
- Neufeldt, S., Karno, M. P., & Nelson, M. (1996). A qualitative study of experts' conceptualization of supervisee reflectivity. *Journal of Counseling Psychology*, **43**, 3–9.
- R Development Core Team. (2011). *R: A language and environment for statistical computing*. Vienna, Austria: R Foundation for Statistical Computing.
- Simon, H. A. (1973). The structure of ill structured problems. *Artificial Intelligence*, **4**, 181–201.
- Stoltenberg, C. (1981). Approaching supervision from a developmental perspective: The Counselor Complexity Model. *Journal of Counseling Psychology*, **28**, 59–63.
- Stoltenberg, C. D., & McNeill, B. (2010). *IDM supervision: An integrative developmental model for supervising counselors and therapists*. New York, NY: Routledge.
- Watkins, C. E., Jr. (1993). Development of the psychotherapy supervisor: Concepts, assumptions, and hypotheses of the Supervisor Complexity Model. *American Journal of Psychotherapy*, **47**, 58–74.
- Worthington, E. L., Jr. (1987). Changes in supervision as counselors and supervisors gain experience: A review. *Professional Psychology*, **18**, 189–208.