The previous chapters have provided you with basic concepts you need to begin to be an effective consumer of counseling and educational research. Chapters 11 through 17 are focused on ways to evaluate research published in professional journals. Students have frequently commented to me, after receiving instruction in evaluating research, how surprised they are at the limitations of studies reported in the professional literature. Generally, they have accepted what was presented in the professional literature as basic truths.

The methods and guidelines for evaluating professional journal articles are fairly detailed. At first, the guidelines may seem tedious to use, but as with learning any new task, it becomes easier with practice. Certainly, once you have acquired the knowledge and skills to be an effective consumer of counseling and educational research, you will not need to evaluate each article you read in such detail. The intention is that, after in-depth practice, you will be able to note areas of potential problems and focus on these more specifically rather than on every single detail of the research article. It is important to remember that research with humans is complex, and every study will have some (or many) limitations. The purpose of developing a critical eye in reading and using research is to become a more effective consumer and user of research. Generally, no one error or limitation of a study should cause you to totally reject the findings. The evaluation approach suggested in this text is a guide for consumers and users of research. It may be used to systematically determine which components of a study are more valid and what needs to be accepted with caution.

A beginning point for evaluating a research article is the characteristics of a literature review. Guidelines and questions for evaluating counseling and educational research are discussed. Finally, examples are provided from the literature to illustrate how to use the guidelines to evaluate research.

The general purpose of the literature section is to provide an argument for conducting the study. Consequently, researchers attempt to systematically cite previous,
related research to frame the problem dealt with in their own study. In addition, they attempt to identify any gaps in the current literature. It is helpful if the literature review summarizes the gaps in previous research on the topic and a link is provided to how the current study will address this gap. Typically, primary sources (other research conducted on the topic and reported in the professional literature) are used to develop the argument. The researchers should present a rationale or identify the significance of their own research in light of how it will add to current knowledge. The literature review should be thorough and comprehensive enough to develop the argument for conducting the study. You may find that a literature review varies in length depending on the intent and purpose of the particular journal in which the study is published. The majority of journals encourage researchers to present a thorough and comprehensive argument for conducting a study. A few journals, particularly journals where brief reports are published, may not require, or even allow, a longer literature review. It is important to first identify whether an article is intended to be a brief report before engaging in your detailed analysis of the literature review.

Researchers typically conduct a study because they are interested in the topic. Also, how they frame the study is influenced by their personal views and expectations about the possible results. This seems a contradiction to the idea of objectivity in research, but a researcher typically does not conduct a study unless he or she has a particular interest, and potentially a particular hypothesis, in mind. Many researchers have commented that they conduct studies because of the interest the subjects hold for them. A researcher’s interest could be influenced by some personal events that could slant the way the study is presented. Additionally, the study could be a follow-up to a previous study, and thus certain outcomes might be expected. Because of researcher expectations and personal experiences, it is important to note any biases in the literature review.

Even though anyone reading a study reported in a professional journal is generally familiar with the field, the researcher needs to define any new or relatively unknown concepts in the literature review. Another intent of those writing the literature review may be to describe new or common research methods in a particular area of study that may be of interest in the current reported study.

GUIDELINES AND QUESTIONS FOR EVALUATING RESEARCH

As mentioned earlier, the major purpose of the literature review is to develop an argument for conducting the study. Several related questions may be asked concerning this argument: (1) Do the researchers present an adequate rationale for
conducting the study, and are gaps in the literature clearly identified? (2) So what? Or a related question is this: What difference will the study make to the fields of counseling or education?

As has been noted, science and research have an intent of pursuing objectivity, but researchers may potentially include personal biases in the construction of a study. A relevant question then is this: Do the researchers present any potential biases in the literature review? For example, does the researcher cite only his or her own prior research? A related question is whether the researcher presents only one side of a theory or view. Generally, an issue or research topic has more than one viewpoint.

Previously, it was suggested that the literature review should include relevant definitions and descriptions of unknown concepts. A question to address here may be this: Are all important concepts clearly defined by the researchers?

Another area of concern is whether the literature is thorough and comprehensive enough to develop the argument for conducting the study. It is relevant to note whether important researchers and theorists are cited in the review. For example, if a researcher was addressing self-efficacy, he or she would want to acknowledge the works of Bandura (1977), who developed the concept. So, the question to address may be this: Is the literature review thorough and comprehensive?

Another question to address in the literature review is whether there is a description of any new methods in a particular area of study that relate to the current study. The question to ask is this: Do the researchers clearly describe previous methods that are relevant to understanding the purpose for conducting this study?

To review, here are the questions to address when analyzing a literature review:

1. Do the researchers present an adequate rationale for conducting the study, and are gaps in the literature clearly identified?
2. So what? What difference will the study make to the fields of counseling or education?
3. Is the literature review thorough and comprehensive?
4. Do the researchers demonstrate any potential biases in the literature review?
5. Are all important concepts clearly defined by the researchers?
6. Do the researchers clearly describe previous methods that are relevant to understanding the purpose for conducting this study?
EVALUATING ARTICLES IN THE PROFESSIONAL LITERATURE

SECTION II ◆ EVALUATING ARTICLES IN THE PROFESSIONAL LITERATURE

EVALUATION OF EXAMPLES FROM THE RESEARCH LITERATURE

Quantitative Research

Henderson, Rosen, and Mascaro (2007) studied the effectiveness of using mandalas in working with those with posttraumatic stress. The literature review is cited below:

The expression and disclosure of previously experienced traumatic events is associated with better subsequent physical and mental health (Esterling, L'Abate, Murray, & Pennebaker, 1999; Smyth & Helm, 2003).

Extensive attention has been given to the efficacy of written expression of traumatic events in promoting physical and psychological well-being and various studies have resulted in a body of research supporting a written disclosure paradigm (see Pennebaker, 1997a, 1997b for a review). According to this paradigm set forth by James Pennebaker, writing about traumatic or stressful events in an emotional way for as little as 15 minutes over 3 to 4 consecutive days brings about improvements in physical and mental health (Pennebaker & Seagal, 1999).

The principle of therapeutic exposure posits that repeated exposure to aversive conditioned stimuli leads to the extinguishment of negative emotions associated with such stimuli, resulting in beneficial outcomes (Foá & Rothbaum, 1998). Some researchers contend that written disclosure serves as a context in which individuals are repeatedly exposed to traumatic memories (i.e. exposure to aversive stimuli and the negative emotions associated with it), which allows for the gradual extinction of negative emotional associations across sessions (Kloss & Lisman, 20020; Pennebaker, 1997b; Sloan & Marx, 2004a, 2004b). This is theorized to be one of the mechanisms underlying the overall effectiveness of the written disclosure paradigm.

Another theory regarding the effectiveness of written disclosure on physical and mental health has to do with the cognitive changes associated with this type of writing. Once a meaningful and integrated narrative is formed, it is hypothesized that the traumatic event can then be summarized, stored, and allowed to become a nonthreatening memory rather than a ghost that chronically haunts consciousness, subsequently leading to a decrease in psychological distress (Msyth, True, & Souto, 2001).

Although the innovative work of Pennebaker and other researchers has supported the utility of the written disclosure paradigm and the numerous benefits associated with the disclosure of trauma, the written disclosure paradigm has been found to be ineffective among individuals with disordered cognitive processes of relatively severe depression (Gidron, Peri, Onnonly, & Shaley, 1996; Stroebe, Stroebe, Schut, Zech, & van den Bout, 2002).

The vast majority of written disclosure studies involve only written expression; however, Judith Pizarro (2004) performed a recent study that examined whether art therapy was as effective as writing therapy in improving the outcomes of psychological and health measures.

Pizarro sampled 41 participants using two experimental groups (expressive art therapy or writing therapy) and a control art condition. Consistent with Pennebaker’s findings, there was a significant decrease in social dysfunction within the writing group, however, the participants in the art groups did not have similar health benefits. Although the art groups did show a greater enjoyment of the experience, the researcher surmised “generating art” may not provide sufficient cognitive organization and therefore may not be able to provide the same positive health benefits as writing therapy (Pizarro, p. 10). A combination
of the two was suggested in which writing could heal while art could make the process more enjoyable, thus increasing therapy compliance.

Rather than completely dismissing art therapy as an effective means of processing trauma, an artistic task that lends itself particularly well to the symbolic expression and disclosure of a traumatic event is mandala drawing.

A mandala, used as a meditative tool in various religions but most famously in Tibetan Buddhist [sic], is a circular design that is thought to promote psychological healing and integration when created by an individual. The use of the mandala as a therapeutic tool was first espoused by Carl Jung, who suggested that the act of drawing mandalas had a calming and healing effect on its creator while at the same time facilitating psychic integration and personal meaning in life (Jung, 1973), which serves as the rationale for using them for traumatic disclosure tasks. The mandala functions as a symbolic representation of emotionally laden and conflicting material, yet at the same time provides a sense of order and integration to this material.

In this manner, drawing a mandala is similar to a written disclosure in that it provides cognitive organization to complex emotional experiences. Art psychotherapists use the mandala as a basic tool for self-awareness, self-expression, conflict resolution, and healing (Siegelis, 1987). Within the realm of art therapy, the mandala generally refers to any art form that is executed within a circular context. Although most research into the healing aspects of mandala drawing has been limited to case studies argue [sic] for using mandalas therapeutically within numerous populations and settings, including schizophrenia and psychotic disorders (Cox & Cohen, 2000), attention-deficit/hyperactivity disorder (Smitherman-Brown & Church, 1996), and dementia patients (Couch, 1997). Cox and Cohen note that, particularly for individuals regarding abuse, illustrative coding of traumatic events in drawings allows clients the ability to maintain secrecy (both from their therapists and from themselves), while at the same time symbolically communicating and resolving material (Cohen & Cox, 1989, 1995).

To date, empirical research on the use of mandalas as a therapeutic tool is limited. In one of the first attempts undertaken to examine scientifically Jung’s theory that mandala creation promotes psychological health Siegelis (1987) found that those who drew inside a circle experienced more positive affect than those who drew within a square. Although the results of the Siegelis study lend support to the argument that mandalas have calming and healing properties, the experimental design and data were limited and inhibit the inferences that can be drawn from the results.

A recent study by Curry and Kasser (2005) evaluated the effectiveness of mandala drawing in the reduction of anxiety. Anxiety levels were measured before and after an anxiety induction exercise, and after one of the three coloring conditions (free-form, mandala-drawing, or plaid-form). Decreases in anxiety were experienced for those in the mandala and plaid-form conditions.

Although these results show potential, the design of the research used predrawn mandala forms and predrawn plaid patterns, so the results could be interpreted in various ways, such as the calming effects of art therapy in general versus the effects of actually creating a mandala.

Our study sought to test in a controlled manner, the psychological and physical health benefits of mandala drawing within a trauma population. In choosing a research design and methodology that would adequately achieve this goal, we drew upon the techniques and methodology used in a body of research by James Pennebaker and colleagues that examines the physical and psychological health benefits of disclosure of traumatic events through writing (Pennebaker, 1997a, 1997b; Pennebaker & Seagal, 1999; Pennebaker & Susman, 1988). Our study design is modeled closely after the recent study conducted by Sloan and Marx (2004a). It applies a creative variation of the disclosure paradigm and this sort of creative extension has been encouraged. (King, 2004, pp. 148–149)
The first questions to address are whether the researchers provided an adequate rationale for conducting the study and whether there are gaps clearly identified in the literature. Henderson and colleagues (2007) introduced research that supports the view that writing about trauma reduces stress and is beneficial. The answer to this first question is that the researchers do present an adequate rationale and cite relevant research. The citation of Pennebaker’s work on using writing to reduce stress provides support for their view. Specifically, they suggested that writing allows for cognitive integration of the experience. They then introduced the idea of using art to improve psychological functioning and reduce stress and argued that it is similar to writing in expressing connections to the traumatic experience. Next, they introduced the idea of using art and specifically mandalas to achieve similar results to writing, that is, reduced stress and better physical and mental health. The authors noted the limitations of the research to support improving psychological functioning. However, they noted that there is preliminary research to support the use of art in reducing stress and anxiety. Their ultimate argument is that there is not enough research, or there are gaps, on using art to reduce the effects of PTSD, and more research needs to be conducted, the rationale for conducting their study.

The next questions to address are these: So what? What difference does conducting the study make to the field? The researchers do not explicitly state the effect of the study results on the field, but they provide an adequate rationale and a method for meeting the needs of the community. Counselors and therapists can use art therapy, specifically the drawing of mandalas, to promote psychological functioning and well-being. So, the authors are proposing a technique to use in counseling to assist those individuals with PTSD to improve their quality of life, reduce stress, and improve mental health functioning.

In regard to the third question, whether the literature review is thorough and comprehensive, it appears that the researchers do accomplish this goal. They cite research supporting their proposition that writing about PTSD affects stress levels and improves mental health functioning. Additionally, they provide research support for their proposal that art may be similar to writing about PTSD experiences and therefore is worthy of additional research coverage. Specifically, they cite research and theoretical views presented by Pennebaker to give a thorough review of the appropriate and relevant literature. Citations are generally 10 years old or newer, with the majority being published after 2000.

The fourth question about evaluating the research literature section of an article is this: Do the researchers present any potential biases in the literature review? The researchers do provide several different theoretical views on the use of writing and art in treating those with PTSD. Also, the researchers cite research that shows the limitations of using writing to treat those with PTSD; for example, it is not
effective with those with schizophrenia, mental retardation, and other disorders. It appears that the researchers do not show any significant bias in presenting the literature review.

The next question that is important to address is this: Are all important concepts clearly defined by the researchers? PTSD is not defined, nor is traumatic event. It would be helpful for the reader to know explicitly how the researchers define these terms. Also, written disclosures are not well defined or clearly identified. Finally, mandalas are not clearly identified or defined. The study focuses on the use of mandalas as the treatment to be evaluated, but the researchers do not adequately define and identify the concept.

The final question to address is this: Do the researchers clearly describe previous methods that are relevant to understanding the purpose for conducting this study? The researchers do not describe in much detail any previous methods. They do cite previous researchers who have used mandalas (by naming Siegelis, [1987]), but they do not go into any detail about the methods used.

In summary, the researchers Henderson and colleagues (2007) do give an adequate rationale for conducting the study and how the study potentially can have important implications in the treatment of those with PTSD. Also, the literature review appears to be thorough and does not present any particular bias. Several important concepts are not clearly defined, and no description of previous methods is provided.

Metuki, Sela, and Lavidor (2012) conducted a study focused on the use of transcranial direct current stimulation (tDCS) and its effect on the left dorsolateral prefrontal cortex (DLPFC) for addressing verbal insight problems. TDCS involves placing electrodes over specified regions of the brain associated with specific brain functions, in this case, over the left DLPFC. Low-current brain stimulation, tDCS, uses a positive electrode (anode) and a negative electrode (cathode). Researchers have found that the anode increases neuronal potentiation (long-term potentiation), which influences neuronal plasticity and readiness for neurons to fire and function optimally (Stagg & Nitsche, 2011). The researchers, Metucki and colleagues (2012), describe the literature as:

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Language processing and comprehension encompasses linguistic processes as well as non-linguistic processes. For instance, solving verbal insight problems requires one to perform multiple complex cognitive operations that involve language comprehension, semantic processing and problem solving (1). Previous studies have investigated the semantic aspects of this ability, demonstrating extensive involvement of a temporal bilateral network, with a right hemisphere (RH) prevalence when solving verbal problems with insight (2–4).

However, the role of executive functions associated with the problem solving aspects of this ability has received less research attention.
Cerruti and Schlaug (5) were able to enhance performance of verbal problem solving with the use of non-invasive stimulation of the left DLPFC (Broadmann’s Area 9/46), a brain area associated with executive and cognitive control, and provided vital evidence for the importance of this region in supporting the processing of verbal insight problems.

However, the nature of the neuro-cognitive processes underlying the DLPFC support in solving verbal insight problems remained unclear. The main aim of the current study was to further explore the role of the DLPFC in solving verbal insight problems and in particular, to advance our understanding regarding the cognitive control components mediating the stimulation effect and the conditions in which cognitive control operations are required in order to promote solving these problems.

Accumulated findings from behavioural and imaging studies employing different methodological variations of this paradigm have shown converging evidence for a dominant involvement of the RH (2, 3). These consistent findings are in line with the predictions of the BAIS model for semantic processing (8), namely that temporal sites in the RH will have unique involvement when distant meanings are activated and integrated. In addition to the cortical activity attributed to the RH involvement in semantic processing, solving the CRA (Compound Remote Associations) items also invokes activity that has been attributed to processes related to general problem solving (3). The hypothesis that executive functions are likely to be involved in solving these complex verbal problems, beyond their semantic aspects, is further supported by two studies demonstrating cognitive control modulation of the semantic processes involved in this task (5, 9). Few studies of semantic processing have described cognitive control contribution to language processing, mediated by the PFC, using other semantic tasks. For instance neuroimaging studies have attributed the activation of regions within the left PFC (prefrontal cortex) during semantic processing to the recruitment of semantic memory systems (17, 18). Further evidence for the crucial role that the left DLPFC plays in executive control over semantic processing converges in various idiom damaged patients. In particular the DLPFC has been found to be involved in meaning retrieval from semantic memory, selection between alternative meanings and suppression of irrelevant information (19, 20). Cerruti and Schlaug (5) recently provided evidence for the DLPFC involvement in processing verbal insight problems, but the underlying processes of facilitating this involvement have not yet been described. The authors demonstrated that stimulation of the left DLPFC with transcranial direct current stimulation (tDCS) enhanced performance in solving Compound Remote Associate problems. In particular, they found that when given 30 subjects to solve Compound Remote Associate problems, subjects solved more problems after anodal tDCS to the left DLPFC stimulation compared to the sham condition. Taken together, these results indicate that stimulating the left DLPFC not only led to increased fluency in solutions generation, but also to performance in a simple verbal fluency task. The authors argued that the enhancement in the more complex Compound Remote Associate task was facilitated by neural networks associated with executive function (5). These findings prompt interesting questions regarding the role of cognitive control and the left DLPFC in solving verbal insight problems. Aiming to better describe the underlying neuro-cognitive processes that modulate verbal problem solving enhancement, we created a stimulation study with few methodological modifications compared to the procedure used by Cerruti and Schlaug (5). (pp. 110–111)

The first questions to address in evaluating this article and the literature review are these: Do the researchers present an adequate rationale for conducting the study, and are gaps in the literature clearly identified? The researchers provide information...
about research designed to improve performance in verbal problem solving; that is, “solving verbal insight problems requires one to perform multiple complex cognitive operations that involve language comprehension, semantic processing and problem solving” (Metuki et al., p. 110). They systematically review research that cites how solving verbal insight problems has been done in previous research. They cited a reason for conducting such a study and proposed that there needs to be more understanding of how a low-current brain stimulation of the left DLPFC impacts solving verbal insight problems. A second question is this: So what? Or, what difference will the study make to the fields of counseling or education? The researchers hint at what impact this study may have, which is to understand cognitive control processes, such as an ability to solve verbal insight problems, but they do not explicitly describe and identify how it will be beneficial. One can make inferences about the benefits of promoting cognitive functioning in performing multiple complex tasks, but this is not clearly stated. The third question to address in evaluating the literature review is whether the literature review is thorough and comprehensive. The researchers appear to have provided a thorough and comprehensive literature review. They discussed the Compound Remote Associate theory, which is focused on verbal insight problem solving. Also, the researchers discuss previous research on executive brain functions (although minimal) on brain stimulation. One criticism may be an introduction to the actual chemical processes of the effects of low-current brain stimulation. Another question to address in evaluating the literature review is this: Do the researchers demonstrate any potential biases in the literature review? The researchers provide 38 references and do not cite any of their own work. They do not provide any alternative explanations or ways of impacting or changing the ability to solve verbal insight problems. The next question is whether all important concepts are defined clearly by the researchers. The last question is this: Do the researchers clearly describe previous methods that are relevant to understanding the purpose for conducting this study? The researchers discuss previous methods and state, “A procedure used by Bowden & Jung Beeman (6,7), participants were presented with the problem words for a shorter duration of time and then presented with a target word. Participants were requested to solve the problem while the prime words were presented” (Metuki et al., p. 111). These researchers do provide important information on how previous methods of understanding verbal insight problems have been done.

**Qualitative Research**

The questions to address with qualitative research in evaluating the literature review are similar to those asked with quantitative research. So, the same questions will be used in the following example of a qualitative study.
Fry (2007) investigated first-year teachers’ experiences in entering schools and their induction support, or support for entrance into the teaching profession. She used a qualitative method; specifically, she employed a case study method. The literature review is described below.

Many new teachers adopt traditional teaching methods during their student teaching and early in-service years instead of utilizing the innovative ones they were exposed to in teacher preparation (Feiman-Nemser, 2001; Veenman, 1984). This tendency can result from interactions with experienced colleagues who deride innovative research-supported teaching methods (Clark, 1999). Survival plays a role as well; faced with seemingly insurmountable classroom management issues, beginners often adopt traditional teaching methods that keep the students working quietly in their seats, and thus are easier to control (Veenman, 1984). These factors led Feiman-Nemser to conclude, “sink or swim” induction encourages novices to stick to whatever practices enable them to survive whether or not they represent “best” practice in that situation” (p. 1014).

In contrast, well-designed induction programs can provide beginning teachers with support that helps them survive the classroom management challenges, seemingly endless curriculum and instruction questions, and feelings of isolation that contribute to retained high percentages of beginning teachers. For example, studies of induction programs at Santa Clara, California; Walla Walla, Washington; and southern Illinois.

Reported retention rates that were greater than 90% over 6, 5, and 3 year time periods, respectively (Boss, 2001; Chubbuck, Clift, Allard, & Quinlan, 2001; Linik, 2001). Although these studies reported the successes of individual induction programs, the collective impact of induction programs may not be as significant. Smith and Ingersoll (2004) reported that nearly 80% of 1st-year teachers nationwide participated in some form of induction an increase of approximately 40% from 10 years earlier. This increase in induction program participation does not seem to have correlated in reduction of attrition rates, which remain near 29% for the first 3 years of teaching (Ingersoll, 2001, 2002).

Attrition rates may have remained stable despite increased participation in induction programs because of variability in the type of support offered. Smith and Ingersoll (2004) analyzed the impact different forms and combinations of induction had on attrition using results from the 1999–2000 Schools and Staffing Survey (SASS), a national study that includes data from approximately 52,000 elementary and secondary teachers. After controlling for differences in teacher and school characteristics, Smith and Ingersoll found that predicted attrition rate for beginning teachers receiving no form of induction support; mentoring, supportive communication from an administrator or department chair, common planning time with other teachers in the grade or content area, or seminars for beginning teachers. Receiving only one of these forms of induction support did not have a significant impact on the predicted attrition rate. A combination of mentoring and supportive communication from an administrator, which Smith and Ingersoll refer to as “basic induction,” produced a predicted attrition rate of 39%. The predicted attrition was reduced to 27% when beginning teachers had basic induction plus common planning time with other teachers in the grade or content area, and participated in seminars for beginning teachers. The lowest predicted attrition rate was 18%; this was achieved when beginners received the combinations described above plus one of the following: a teacher’s aide, reduced number of preparations, or participation in an external network of teachers. Smith and Ingersoll’s analysis suggests that the mere presence
of induction programs is not enough to reduce attrition rates among beginning teachers; the form
and quality of induction that schools provide is important.

Smith and Ingersoll’s (2004) research was based on a quantitative data set (SASS) that
determines whether or not beginning teachers received specific forms of induction. SASS does not
measure how useful teachers found their induction experiences. Since the presence of induction
may not be enough to reduce attrition rates, research needs to move beyond determining the
prevalence of induction and begin to assess form and quality. Interviewing beginning teachers
about their experiences and support they receive is a valuable way to assess the form and
quality of induction in the schools. Interviews provide evaluative data immediately so schools do
not need to wait until the 3-year induction period is over to see whether or not beginning teachers
become attrition statistics. (pp. 216–217)

The same questions that were used to evaluate quantitative research can be
used to evaluate the study by Fry (2007), which is a qualitative study. The first
question is whether the researcher presents an adequate rationale for conducting the study. Fry notes the problems with school systems not providing adequate
teacher induction programs and the use of traditional methods by new teachers
that keep students docile and sitting in their seats. Fry describes these efforts as
“survival” practices by the new teachers. Another major problem with not having
helpful teacher induction programs is that there is a high attrition rate; new teachers
leave shortly after beginning their careers in education. The author noted that a
significant issue may not be simply the attrition rates of new teachers leaving the job
but the quality of any induction methods used by school districts to keep and support new teachers. The rationale provided is clear and is based upon previous
research, and the problem of attrition is a good rationale for conducting a study in this area. Also, finding specific factors that contribute to quality teacher induction appears to be reasonable.

The next questions to ask are these: So what? What difference will the study results make for those in counseling and education? The benefit of understanding the quality of teacher induction is noted, with the author stating, “Interviewing beginning teachers about their experiences and the support they receive is a valuable way to assess the form and quality of induction in schools. Interviews provide evaluative data immediately so schools do not need to wait until the 3-year induction period is over” (Fry, 2007, p. 218). The point here is that schools can benefit from the study information and can potentially provide improved quality of teacher induction methods.

The third question concerns whether the literature review is thorough and comprehensive. Fry (2007) discusses various induction programs for new teachers and cites numerous studies and writings on the topic. She cites seven different studies
and describes two different programs that have used new teacher induction methods. The citations ranged from 1984 to 2004, with most citations being recent, within the previous 7 years. A related question is whether the author presents any potential biases in the literature review. The author does not cite her own research. However, she does not note any limitations or problems with other studies or research. She does cite research that found lower levels of successful induction procedures (Smith & Ingersoll, [2004]). It is not clear whether she demonstrates much bias in her literature review. It would have been helpful to see research outcomes showing a potential difference from the positive research she cites on new teacher induction.

The next question to address in evaluating the literature review is whether the author has defined important terms. The most important term in Fry’s study is induction (new teacher induction). Fry (2007) does not define induction for the reader, so it is difficult to know exactly what she means by this term. She does describe induction support as referring to supportive communication from an administrator, common planning time with other teachers, and other efforts. Despite these descriptions, it is difficult to know what induction or induction support actually is.

The last question is whether the researchers describe previous methods. Fry (2007) does cite two other new-teacher induction programs in Washington and California but does not describe the methods used. More detail about the actual induction procedures would have been helpful to the reader.

**Single-Subject Research**

A study by Norell-Clarke, Nyander, and Jansson-Frojmark (2011) is an example of a single-subject study. These researchers studied sleep problems in adolescents and used cognitive therapy as a treatment. Consistent with a single-subject design, they studied three adolescents. The adolescents ranged in age from 16 to 18. They found that the insomnia the adolescents experienced was reduced by cognitive therapy. Norell-Clarke and colleagues described the literature review and stated,
An analysis of the literature starts with this question: Do the researchers present an adequate rationale for conducting the study? The rational presented in the literature focuses on previous research showing that a significant proportion of adolescents suffer from sleep insomnia. The researchers further noted that minimal research has been conducted into the treatment of sleep insomnia for adolescents, but there has been considerable research on treatment of adults. The second question is this: So what? Or, what difference will the study make to the fields of counseling or education? The researchers suggest that developing a treatment for adolescent with insomnia may address negative outcomes such as worry, selective attention and monitoring, and consequences of bad sleep. A difference in finding a treatment for adolescent sleep insomnia appears to be important. The third question is this: Is the literature review thorough and comprehensive? The literature is somewhat brief, but the researchers provide previous research evidence that adolescent sleep insomnia is a problem. They also discuss relevant research addressing treatment of sleep insomnia. However, the researchers do not address any other treatment options of methods such as pharmacological interventions. The fourth question is this: Do the researchers demonstrate any potential biases in the literature review? One potential bias is that no other treatment interventions were discussed other than cognitive behavior for insomnia. Certainly, there are other treatments such as pharmacological treatment. Another question is this: Are all important concepts clearly defined by the researchers? Sleep insomnia was well defined in the literature review; the researchers defined sleep insomnia as difficulty “falling asleep, staying asleep, or not feeling rested in the morning for a least one month combined with daytime symptoms” (Norell-Clarke et al., 2011, p. 367). Finally, the last question is this: Do the researchers clearly describe previous methods that are relevant to understanding the purpose for conducting...
this study? The researchers do not discuss any previous research methods in the
literature review but appropriately note where one can find a clear description of such
methods, for example, Harvey, Sharpley, Ree, Stinson, and Clark (2007).

SUMMARY

The literature review is the initial introduction to the reader and consumer, outlining
the argument or rationale for conducting a particular study. Generally, there should
be a strong and clear argument developed by the researchers for conducting the
study based on previous research, theory, or personal experience. Several criteria
have been proposed for evaluation of the literature review. One of the most important
guidelines or questions, for me, is the answer to the so-what question. Why is it
important to conduct this study? What difference will it make to counseling and
education? If this question cannot be adequately addressed, I do not see the need
to continue reading or using a particular article or study. Both quantitative and
qualitative research studies can be evaluated using the same set of questions.

Exercise

Directions: Locate an article in the professional literature addressing a topic you
are interested in exploring. Evaluate the literature review based on the questions
addressed in this chapter. Try to explain and justify your answers based on specific
examples from the article.

1. Do the researchers present an adequate rationale for conducting the study, and
   are gaps in the literature clearly identified?
2. So what? What difference will the study make to the fields of counseling and
   education?
3. Is the literature review thorough and comprehensive?
4. Do the researchers demonstrate any potential biases in the literature review?
5. Are all important concepts clearly defined by the researchers?
6. Do the researchers clearly describe previous methods that are relevant to under-
   standing the purpose for conducting this study?