Applying Adult Experiential Learning Theory to Clinical Supervision: A Practical Guide for Supervisors and Supervisees

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Patrick R. Walden
Monmouth University

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Monica Gordon Pershey
Cleveland State University

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Applying Adult Experiential Learning Theory to Clinical Supervision: A Practical Guide for Supervisors and Supervisees

Patrick R. Walden

Department of Communication Sciences and Disorders, St. John's University
New York, NY

Monica Gordon-Pershey

School of Health Sciences, Cleveland State University
Cleveland, OH

Abstract

This article describes the application of adult experiential learning theory to the clinical supervision of graduate student clinicians in communication sciences and disorders. The proposed adult experiential learning model integrates enhanced and updated interpretations of Bloom's Taxonomy. Practical tools to help supervisors and supervisees implement the model are provided: a clinical supervision worksheet and two case studies illustrating use of the model.

Clinical supervision is an important component of the pre-professional preparation of communication sciences and disorders (CSD) students (American Speech-Language-Hearing Association [ASHA], 2008). CSD students develop clinical practice skills by experiencing hands-on learning with clinical populations. Student success in clinical practica is in large part dependent upon the type and quality of supervision that they receive. Various conceptual approaches to clinical supervision (e.g., Dowling, 2001; Hegde & Davis, 1999 [chapter 4]; McCrea & Brasseur, 2003) provide clinical supervisors with a range of strategies for enhancing the learning experiences of their supervisees.

Walden (2011) and Gordon-Pershey and Walden (2013) outlined a model of clinical supervision that uses Jarvis' (1987) principles of adult experiential learning theory as its conceptual framework. Gordon-Pershey and Walden (2013) researched supervisor and supervisee perceptions of the utility of their adult experiential learning supervision model during a one-semester, university-based clinical supervision experience where the supervision model was employed. The researchers found both benefits and limitations to the supervision model. A limitation was that the

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participating supervisors indicated that they needed more information on how best to implement the supervision model with their students. Therefore, our purposes in this article are to further conceptualize this supervision model and add supplemental guidance for its use.

In order to achieve these purposes, we offer an expanded perspective that incorporates Jarvis' principles of adult experiential learning with Bloom's Taxonomy (Anderson et al., 2001; Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956; Krathwohl, 2002). We have overlaid these two theories' respective principles of learning based on their commonalities, and we apply this new perspective as the basis for a clinical supervision tool. In order to help guide supervisors, we provide a worksheet that suggests how to focus clinical supervision sessions, as well as two case examples that illustrate the use of adult experiential learning theory as a guide to clinical supervision.

A Clinical Supervision Model Based on Jarvis' Principles of Adult Experiential Learning

Walden (2011) and Gordon-Pershey and Walden (2013) based their adult experiential learning model of clinical supervision on the work of Peter Jarvis (1987). Jarvis' model of adult experiential learning identified how adults respond when engaged in learning from experience. Learning situations provoke *learning responses*. The continuum of learning responses is *non-learning response*, *non-reflective learning response*, and *reflective learning response*. Figure 1 shows the Jarvis model in graphic form. As the graphic indicates, learners who gain in reflectivity are progressing in development that is depicted as moving from the left hand column to the right hand column.

Figure 1. Adult Experiential Learning Model
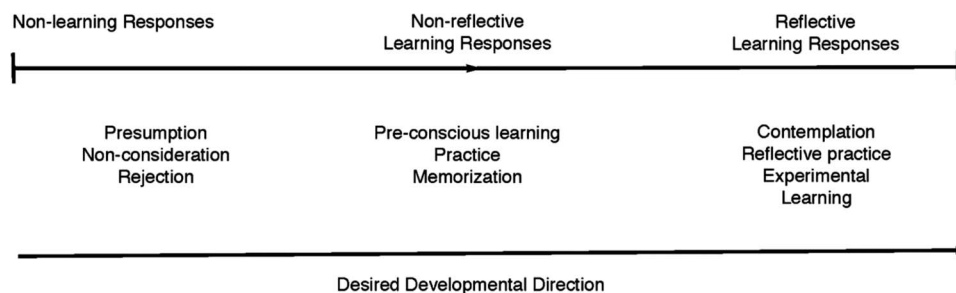
In the Gordon-Pershey and Walden adult experiential learning model of clinical supervision, the supervisor and supervisee employ Figure 1 to identify the supervisee's learning responses in clinical situations. A *non-learning response* consists of presumption, non-consideration, or rejection. These behaviors result in a supervisee not learning (or learning very little) from a clinical situation. The supervisee is essentially not receptive to learning about information and skills in relation to context and self-analysis. What little learning takes place is mere presumptiveness and is not reflected upon by the supervisee. Moving along the continuum, *non-reflective learning responses* may be based on pre-conscious learning (which means recall and use of information in a rote or routine manner without conscious, thoughtful, or critical examination). *Non-reflective learning responses* indicate that the learner is at a level of practice or memorization. Certainly, academic and professional learning requires some degree of memorization and practice, as well as imitation of models offered by supervisors and other educators and professionals. Although imitation, repetition, and memorization are often prerequisites to more complex, reflective, and independent learning, it is important for skilled practitioners to move beyond non-reflective learning responses. *Reflective learning responses* are indicated by contemplation, reflective practice, and experimental learning. The supervisee evidences responsibility for his or her own

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learning and professional growth (or shares that responsibility with the supervisor), engages in critical evaluation of professional information and practices, and employs his or her original thinking in an effort to learn what to do, how to do it, when to do it, and why to do it. These higher-level responses are integral for clinical problem-solving and advanced clinical practice.

Integrating Bloom's Taxonomy Into the Clinical Supervision Model

First published by Bloom et al. in 1956, and then later formally revised (cf., Anderson et al., 2001), Bloom's Taxonomy of Educational Objectives has been given much attention in educational research and widespread practical application in educational settings. The taxonomy was originally created as a way to study educational problems (Krathwohl & Anderson, 2010). Over time, use of Bloom's Taxonomy has spread and it has been applied to learning in fields as diverse as pharmacy (Myo-Kyoung, Patel, Uchizono, & Beck, 2012) and sustainability (Pappas, Pierrakos, & Nagel, 2013). The original model (Figure 2) suggested six cognitive processes that are central to learning: *knowledge*, *comprehension*, *application*, *analysis*, *synthesis*, and *evaluation*.

Figure 2. Original Bloom's Taxonomy (1956)

Many enhancements of the model are available. A search of Google Images (July 17, 2013) yielded hundreds of different designs that offer revisions and applications of the model. Many of the enhanced models, such as the one reproduced in Figure 3 (Artley, n.d.), use some new names for the six central cognitive processes. In the central circle of the Figure 3 model, *knowledge* and *comprehension* are merged into *remember/understand*; *apply*, *evaluate*, and *analyse* [sic: analyze] remain, and *create* has been added. *Synthesis* has been deleted. The ring around the central circle suggests operational behaviors, such as *research*, *illustrate*, *construct*, *discuss*, *rearrange*, and *compare*. In the next ring, learning products (as in tasks, assignments, or outcomes that learners are responsible for) are given, such as *flowchart*, *diagram*, *survey*, *worksheet*, *presentation*, and *podcast* (cf., Gordon-Pershey, 2003). The outermost ring describes types of learners: *creative thinkers*, *reflective learners*, *team workers*, *self-managers*, *effective participators*, and *independent enquirers*.

Figure 3. Enhanced Model Derived From Bloom's Taxonomy

It is apparent that the goal of Bloom's Taxonomy and the subsequent revised versions is to educate independent, reflective learners who excel at critical thinking, creativity, and problem-posing and problem-solving. The outcomes of learning experiences are meant to inspire learners and foster useful and transferable skills that they can share in the workplace, home, community, and society. Clearly, Jarvis' model of adult experiential learning has complementary aims. The following discussion details how Bloom's Taxonomy and the Jarvis model coincide.

Bloom's Cognitive Processes Overlaid with Jarvis' Reflective Practices: Achieving Metacognitive Knowledge

In the enhanced version of Bloom's Taxonomy (Artley, n.d.; Figure 3), the six cognitive processes of *remember*, *understand*, *apply*, *analyze*, *evaluate*, and *create* are written as action verbs. Krathwohl and Anderson (2010) remark that the action orientation to these cognitive processes is a provocative change from the original model, which used mostly nouns to describe the cognitive processes. The shift is away from a commodity (e.g., *knowledge*) to an ongoing activity (e.g., *create*).

To *remember* is the cognitive process of accessing knowledge from long-term memory (Krathwohl, 2012). To *understand* is "determining the meaning of instructional messages, including oral, written, and graphic communication" (Krathwohl, 2002, p. 215). To *apply* requires the learner to make relevant connections in a given situation. To *analyze*, the learner must examine something carefully and in detail in order to understand it better or discover more about it (Analysis, 2003). Often the learner breaks the "material into its constituent parts and detect[s] . . . how the parts relate to one another and to an overall structure or purpose" (Krathwohl, 2002, p. 215). To *evaluate*, a learner is required to draw conclusions when given a set of criteria. In order to *create*, a learner must use current knowledge or behaviors in a new way or develop new knowledge, behaviors, products, or outcomes.

Much of the time, novice learners need to *remember* and *understand* fundamental concepts and information and then they can *apply*, *analyze*, *evaluate*, and *create* using this information. The higher-level cognitive processes require strong foundational knowledge; supervisees cannot

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apply concepts and information that they do not remember and understand. The cognitive processes that a supervisor can expect a student to use need to be tailored to the learner's *type and degree of knowledge*. Knowledge is of four types: *factual, conceptual, procedural,* or *metacognitive* in nature (Krathwohl, 2002). As for degree of knowledge, *factual, conceptual,* and *procedural* knowledge underpin higher-level *metacognitive* knowledge. A focus on *factual, conceptual,* and *procedural* knowledge can achieve *non-reflective learning responses*. To achieve *reflective learning responses, metacognitive* knowledge is required.

   Factual knowledge includes the facts and concepts that a learner must know in order to operate in a subject matter. For example, a CSD student must *remember* and *understand* that /t/ is a voiceless lingual-alveolar stop consonant. Krathwohl (2002) describes *conceptual knowledge* as "the interrelationships among the basic elements within a larger structure that enable them to function together" (p. 214). Conceptual knowledge can include theories and models. A CSD student must conceptualize behaviorist theory in order to understand how and why operant conditioning is a model for bringing about desired behavioral changes in a client. *Procedural knowledge* is required in order to perform a task (Krathwohl, 2002) and involves knowing procedures, recalling them as a situation demands, and sequencing any needed steps. Procedural knowledge implies being able to choose appropriately from an array of possible procedures and using a choice effectively. For a CSD student, procedural knowledge is a considerable part of the focus of early clinical education and continues to be acquired through the clinical fellowship. Procedural knowledge may include accurate administration of a formal test or following the recommended scope and sequence of a therapy approach, for example, the Cycles approach (Hodson & Paden 1991) to phonology therapy.

   Metacognitive knowledge goes beyond learning and doing. This degree of knowledge includes being able to think about cognition itself and about our own thought processes (Krathwohl, 2002). Metacognitive knowledge is used when we self-monitor our own learning and when we consider the various ways that people learn. A student's successful learning is dependent upon his/her metacognitive knowledge of his/her own learning and thinking. Students acquire metacognitive knowledge when they self-reflect and self-assess. A student with metacognitive knowledge will be able to think critically and reflectively about what he/she knows and does and will be able to consider how to use this knowledge to guide his/her actions.

   Importantly, in clinical supervision, a supervisor's own metacognitive knowledge is a key component of the supervision process. Not only must supervisors monitor how students learn, they must self-monitor and understand how they themselves learn. Reciprocity underlies reflective learning responses: the supervisor reflects upon him/herself while reflecting upon the supervisee, and the supervisee reflects upon him/herself while reflecting upon the guidance offered by the supervisor.

   Therefore, metacognitive knowledge is the key commonality that connects the six cognitive processes identified by Bloom and his successors to the learning practices outlined by Jarvis. Non-reflective learning responses could be in use if a learner only *remembers* and *understands* — if facts, concepts, and procedures are the sole or primary emphasis. Reflective learning responses entail that a learner *apply, analyze, evaluate,* and *create*; these skills entail metacognitive reflection upon the facts, concepts, and procedures that we remember, understand, and apply.

   In summary, Figure 4 depicts how Jarvis' learning responses and metacognition are correspondingly overlaid upon the cognitive processes described by the enhanced Bloom's Taxonomy (Artley, n.d.). In Figure 4, a one-fifth "slice of the pie" illustrates that the cognitive processes of remembering and understanding may bring about non-learning responses. Four-fifths of the pie can engender higher-level cognitive processes, reflective learning responses, and metacognition. Supervisors can enhance their strategies for helping supervisees develop reflective learning responses, higher-level cognitive processes, and metacognition. In the remainder of this article, we offer two types of tools (a clinical supervision worksheet and two case examples) for

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supervisors to use to enhance their strategies for helping supervisees develop reflective learning responses, higher-level cognitive processes, and metacognition.

Figure 4. Enhanced Mode With Learning Responses and Metacognition Identified
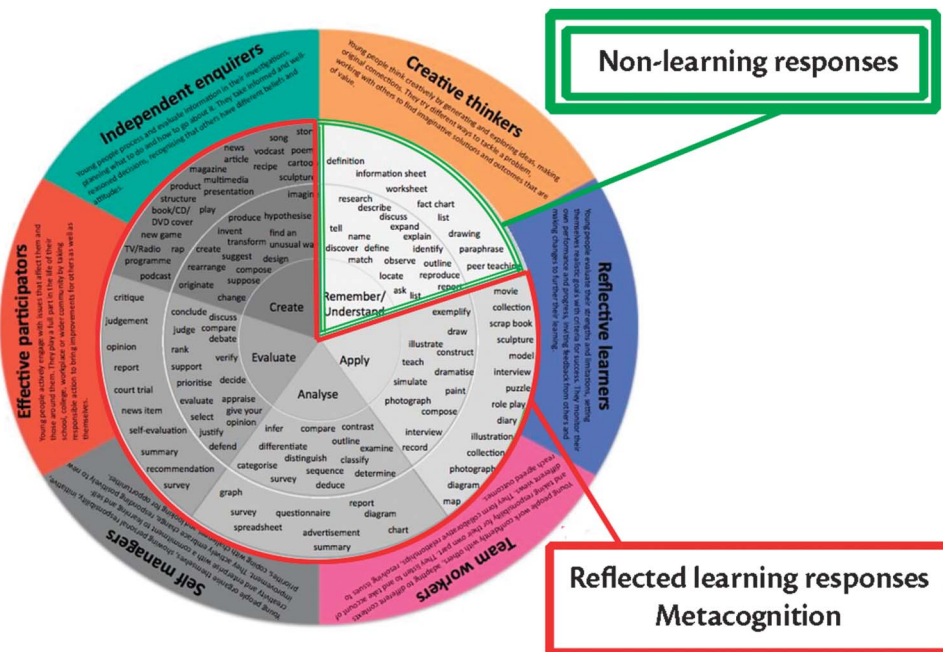
Clinical Supervision Worksheet

Appendix A provides a clinical supervision worksheet for planning and conducting clinical supervision sessions that target supervisees' reflective learning responses, higher-level cognitive processes, and metacognition. The worksheet is designed to address two limitations mentioned by the supervisors who employed the adult experiential learning model of clinical supervision during the study conducted by Gordon-Pershey and Walden (2013). First, participants requested more explicit instruction for conveying to supervisees how to achieve Jarvis' learning responses. Second, participants desired strategies for using the supervision model in a time-efficient manner. This worksheet is a means for efficiently planning, organizing, and conveying the learning responses, cognitive processes, and metacognitive learning that the supervisor desires. The worksheet may be used with supervisees at any level of experience, from novice through clinical fellow and, perhaps, as a tool for professional development throughout the career span.

Step 1: Planning With Supervisees in Advance of Clinical Sessions

Before the worksheet can be employed, the supervisor must acquaint the supervisee with what is meant by learning responses, cognitive processes, and type and degree of knowledge. (Asking the supervisee to read the present article may be useful, or supervisors can provide their own information.) The supervisor and supervisee should discuss the information and make sure that the supervisee understands what is expected.

During clinical supervision sessions, the supervisor and supervisee identify the clinical learning goals that they will write in the "Learning Goals" column. (An example might be for the student clinician to accurately discriminate a client's production of target phonemes at the sentence level.) Next, the type and degree of knowledge required to meet each learning goal is indicated in the "Level and Degree of Knowledge" column. (In the example of phoneme discrimination, factual,

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conceptual, and procedural knowledge are needed.) Then, the desired cognitive processes for the learning goal are marked in the "Desired Cognitive Processes" column. (In the phoneme discrimination example, apply, analyze, and evaluate are required cognitive processes.)

Step 2: Reflecting Upon Clinical Sessions

The remaining columns of the worksheet are used after the supervisee has had the opportunity to enact the planned clinical learning goals. The "Learning Behaviors This Date" and "Desired Learning Behaviors Next Session" columns provide guidance for helping the supervisee achieve reflective learning responses. To complete "Learning Behaviors This Date," the supervisor and supervisee discuss how the student responded when enacting the learning goals. To continue the phoneme discrimination example, for example, did the supervisee contemplate how the client's phoneme production is influenced by coarticulation? Did the supervisee experiment with different coarticulation contexts to gather data on the client's behaviors and to give the client helpful phoneme production strategies? The "Desired Learning Behaviors Next Session" column is used to plan subsequent targets for the supervisee. If, for example, the supervisee noticed that the client's phoneme production was influenced by coarticulation but she did not adjust the stimuli to provide the client with beneficial practice, "Learning Behaviors This Date" would have shown contemplation but not experimentation. "Desired Learning Behaviors Next Session" would show that experimentation is a target.

The "Plan for Next Session" is used to describe how the desired learning behaviors for the next session will be met. For instance, the supervisee may review session videos to document how the client's coarticulation influences phoneme production and prepare stimuli for the next session. The supervisee may locate and read information on coarticulation. The supervisee might ask some peers or friends to pronounce words and observe carefully how different speakers coarticulate. The supervisor and supervisee might discuss rationales for when, why, and how a clinician changes stimuli during a session. These examples provide the supervisees with the skills needed to experiment — to "think on your feet" in a clinical situation. Knowledge and practice lay the foundation for being able to experiment.

Ultimately, the supervisor and supervisee will determine the degree to which the learning goal has been met. In some cases, the learning goal will be met completely in a session or two; in other cases, meeting the goal will take time. Many pages of this form could be used until it is time to check off the supervisee's outcomes for the learning goal in the "Outcomes Achieved" column; this could be at the completion of the goal, at the end of semester, or, by necessity, when a client leaves therapy or when a therapy rotation ends. The six columns to the left of "Outcomes Achieved" may be filled in repeatedly until it is time to record the supervisee's outcomes. Ongoing supervisor's notes showing the duration of time that supervisees work toward learning goals and noting outcome dates and special circumstances can help keep this process organized. Of importance is the fact that a supervisee may achieve an outcome that shows any degree of progress. The supervisee described in the phoneme discrimination example has moved to experimentation, but in other cases a supervisee may move only from, for example, practice to contemplation.

Case Examples

The following fictitious case examples show the learning responses, cognitive processes, and type and degree of knowledge that can be stimulated in students who exemplify two different levels of preparedness. Case 1 and Appendices B and C describe an inexperienced student supervisee. Case 2 and Appendix D describe an intermediate student supervisee who, barely entering the second year of graduate school, is approaching the level of skill that will be expected during a clinical fellowship.

Case Study 1: Carol, a Novice Supervisee

Carol is a first-year, second-semester graduate student in a clinical speech-language pathology program. Her supervisor at the university's speech and hearing clinic, Tom, has begun the process

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of incorporating an adult experiential learning model of clinical supervision. Carol completed courses in adult acquired language disorders and motor speech disorders during her first semester of graduate education. Her first semester clinical practicum entailed treating one pediatric language client twice a week. She has no clinical experience with adult language or motor speech disorders.

Prior to beginning her second semester practicum, Carol met with Tom to learn who her client would be for the semester. Tom gave Carol a file for Mary, a new client, that included only a tersely worded hospital discharge summary. Carol read that Mary was a 45-year-old African American female who had a moderate left hemisphere cerebral stroke one month ago that resulted in right hemiplegia, aphasia, and dysarthria. No other information was available. Tom asked Carol to come back the next day with a diagnostic testing plan for Mary.

The next day, Carol presented Tom with her plan to complete the university's case intake form and administer the *Western Aphasia Battery-Revised* (*WAB-R*; Kertesz, 2006) and the *Frenchay Dysarthria Assessment, Second Edition* (Enderby & Palmer, 2008). Tom asked Carol to describe how she had come to decide that these items were appropriate. Carol told Tom that she had completed a case intake form with her client the previous semester, so she thought she should do the same with her new client. She had consulted her textbooks on adult acquired language disorders and motor speech disorders for suggested tests and then verified that the university clinic had both of her choices on hand. Tom asked Carol to practice administering both tests at least twice to at least two friends. He gave Carol a set of conversation starter cards and asked her to practice having a conversation with at least one friend based on the cards so that Carol could elicit a language sample from Mary using the cards. Appendix B shows how Tom completed Carol's first clinical supervision worksheet. The emphasis is on procedural knowledge, applying information, memorization, and practice. The language sampling involved a non-learning response. He logged the "Outcomes Achieved" as practice.

The following week, Carol administered her planned diagnostic tests. During their subsequent supervision session, Tom verified Carol's scoring of both tests and asked her to explain the results to him. Carol stated that Mary had conduction aphasia and showed signs of flaccid dysarthria. Carol had not had an opportunity to transcribe the five-minute language sample she had elicited from Mary.

Tom asked Carol to further describe Mary's communication, but Carol had difficulty offering any information beyond referring to the tests forms to cite examples of Mary's errors. Tom asked Carol to give her general impression of how Mary's speech and language impairments affect her overall ability to communicate. Carol told Tom that Mary was somewhat difficult to understand and had trouble coming up with labels for pictures.

Tom discussed how important language sampling is for revealing how a communication disorder affects a person's ability to communicate in real life. Tom explained in detail how Carol should transcribe her language sample and code it for both errors and successful productions. He asked Carol to write a draft report of her diagnostic findings and a statement telling how Mary's communication difficulties affect her conversational skills. He instructed Carol to use data from her language sample analysis to support her claims. He asked her to develop a plan for Mary that addresses her communication weaknesses and, at the same time, uses her communication strengths. Finally, he asked Carol to plan Mary's next session and to practice each planned task with a friend at least twice. Appendix C shows the clinical supervision log for this session. Carol needed to employ procedural and conceptual knowledge and apply, analyze, and evaluate. Her initial learning responses were non-learning and memorization. Desired learning behaviors were practice, memorization, contemplation, and reflective practice. (The reader will disregard the "Outcomes Achieved" column — the timeframe for the case example ends at this point.)

Discussion of Carol's Case

As shown in Appendix B, Tom set three learning goals for the week. Considering this was Carol's first supervision session with Tom, it was appropriate that Tom was more directive, in

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terms of what Carol should accomplish during the week prior to the diagnostic session with Mary. Because there was little information about Mary in the hospital discharge paperwork, a more comprehensive test battery was required in order to get a better idea of how to plan Mary's speech and language therapy.

Tom's first two learning goals for Carol were for her to administer the Western and Frenchay tests. To administer a formal test requires procedural knowledge, mainly knowledge of the sequence of events or tasks. Tom thought that, at this point in Carol's development, she should simply apply procedural knowledge to both assessments. Higher-level analytical and evaluative thinking about testing would be more appropriate after she had enacted application of the required knowledge (after Carol had a chance to actually give the tests and develop her own cursory knowledge about formal test administration).

Next, it was apparent to Tom that Carol had memorized, in a somewhat uncritical, non-reflective fashion, which tests to administer. This is an appropriate learning response for Carol, given that she had no previous experience with this clinical population. Further, Tom felt that the desired learning response for these two goals (to apply procedural knowledge to administer two standardized assessments) was simply for Carol to practice giving the tests (a non-reflective learning response). What is interesting is that Tom asked Carol to move from one non-reflective learning response to another non-reflective response. Despite the adult experiential learning model's assertion that the learner's desired developmental direction is toward more reflective learning responses, Tom's decision to ask Carol to remain in the non-reflective behavior category was more developmentally appropriate for Carol at that point in time. In other words, it is *entirely appropriate* to stay within a given learning response category if the learner or the clinical situation requires this type of response.

In the "Plan for Next Session" column in Appendix B, Tom and Carol wrote out what Carol should do in the coming week to meet the stated learning goals. These are explicit and action-based directives. During the next supervision session, Tom checked off that Carol's outcome for the initial supervision session was practice. Practice was what was required, and Carol was successful in this task.

The third learning goal in Appendix B (eliciting a language sample using a conversation starter) required that Carol apply procedural knowledge, but somewhat differently than for the testing goals. She was not familiar with how to elicit a language sample using conversation starter cards. Therefore, Tom indicated that her initial learning response to this learning goal was non-learning. This is appropriate for Carol, as she had not been expected to learn anything about language sampling until Tom told her that it should be included in the diagnostic battery. What is more important during this supervision session is that Tom indicated that Carol should move from a non-learning response to a non-reflective learning response (practice) in order to learn how to apply the procedural knowledge that he provided her. Her plan for the next supervision session was to practice eliciting a language sample from her friends. This step was appropriate for Carol both for her own learning and to meet her client's clinical needs. Higher-level cognitive processes and reflective learning responses would be appropriate later in Carol's learning experience (after Carol had a chance to develop basic knowledge about language sampling) — similar to how she would acquire the cognitive processes needed for administering formal diagnostic tests. Once again, it is clear that starting with non-reflective learning responses is entirely appropriate for *some* learners in *some* clinical situations. This further illustrates the flexibility of the adult experiential learning approach to clinical supervision. Learning behaviors can be tailored to each supervisee across various clinical situations.

Appendix C illustrates that Tom, in the second supervision session, was again directive in his supervision style. This was likely necessary for Carol, given that she had just begun to work with a client who has disorders with which she is unfamiliar. The major difference between week one and week two, in terms of Carol's learning goals, was that in week two Carol was expected to take procedural knowledge to a higher level. For example, Carol was required to analyze Mary's

language sample (Learning Goal 1). Since Carol had never analyzed a language sample, she was initially marked as having a non-learning response (before Tom instructed her). She was expected to memorize the steps required to analyze a language sample and then practice those steps. Her plan for the next session was, again, action-based and explicit.

Carol's second learning goal in Appendix C (using data to write a diagnostic report) required procedural and conceptual knowledge. A diagnostic report requires procedural knowledge of report structure, language, and writing style. Conceptual knowledge is required to determine what is pertinent to include in a diagnostic report. This is a good example of an important consideration — that being, how more complex tasks require more than one type of knowledge and more than one type of cognitive process. (This requirement will carry through to Carol's third goal [Appendix C], writing a therapy plan.) However, since Carol had never written a diagnostic report, Tom labeled her initial learning response as non-learning. Tom asked Carol to practice and memorize in order to write her first draft. Tom would then, during the second and third supervision sessions, ask Carol to move along the learning response continuum to learning that is more reflective.

Since this was Carol's second supervision session, the Outcomes column in Appendix C is blank. Outcomes would be completed during Carol's third supervision session, to indicate Carol's learning outcome based on the goals listed.

In summary, use of an adult experiential learning model to guide clinical supervision is not prescriptive. As this case example illustrates, the model allows the supervisor and supervisee the freedom to move along the continuum of possible learning responses to collectively problem solve a supervisee's learning requirements and a client's clinical needs. The addition of Bloom's Taxonomy explicitly shows the knowledge and cognitive processes required to meet these needs and allows an overt, behaviorally based plan to guide the supervisee between each supervision session.

Case Study 2: Mia, an Intermediate Supervisee

The second case describes Mia, a student in her third semester of her master's program in clinical speech-language pathology. Mia has successfully completed courses in child language disorders and articulation and phonology disorders. Since her sophomore year, she has held a job as a nanny for a family with three children — a son who is now age five and twin daughters who are now age eight. Mia's mother is an elementary school reading teacher and Mia is an avid reader. She had always helped her mother construct school materials and set up her classroom. Mia often read the books that her mother selected for her students, and her mother valued Mia's "yea" or "nay" opinion. In her first two semesters of graduate education, she demonstrated a reflective, metacognitive stance and higher-level cognitive processes in her diagnosis and treatment of a total of four child clients who had a variety of conditions that contributed to speech and language impairments.

Mia and two of her peer student clinicians have been assigned to provide group intervention to six 5-year-old children who have needs in language, phonology, and pre-literacy. Since it is summer, the children attend therapy on Monday and Thursday mornings for two 75-minute sessions. Each clinician has primary responsibility for two children. They hold their sessions in a university classroom that has been converted into a carpeted and safe children's playroom. Mia and her peers structure each session predictably, with four segments each day: welcome circle, centers, retelling, and phonological awareness. At the welcome circle, the clinicians read aloud a brief picture book to the children. Language and speech targets are emphasized as the children respond to the read aloud using words, phrases, and sentences (allowing for articulation and phonology practice and use of vocabulary, morphology, syntax, and pragmatics). Next, each clinician runs a center set up in the corners of the room. Here the clinician works with her two assigned clients. Centers focus on individual speech and language objectives using concepts and activities derived from the welcome story. Retelling time brings all of the children and clinicians back together to retell the story using scaffolds such as stick puppets fashioned from pictures of the story characters. The clinicians encourage the children to look back at the story and

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illustrations in order to facilitate recall and sequencing and to build awareness of print referencing (cf., Gordon-Pershey, 2002). The final phonological awareness activity focuses on words from the story, targeting rhyming and phoneme segmenting, blending, and isolation. Chants and songs to build phonological awareness conclude the session.

It is the fifth week of the semester, and Mia and her peer clinicians are progressing well. Their creative activities allow the children many opportunities to produce target responses. Mia's supervisor, Naomi, acknowledges that Mia enacts all levels of Bloom's Taxonomy and demonstrates reflective learning responses and metacognition. The hardest part for each clinician is meeting the challenge of data collection during all activities for the children for whom they have primary responsibility. Naomi wants Mia to use her data in order to better prioritize her two clients' needs. They have consulted the enhanced Bloom's Taxonomy (Figure 4) and agree that the cognitive process involved is *evaluate*. Naomi desires that Mia contribute activities for all four segments of the session that more closely match her clients' needs. The action words they agree upon are *select*, *recommend*, *support*, and *defend*.

Mia's Clinical Supervision Worksheet is shown in Appendix D. Her Learning Goals are: (1) *Recommend* criteria for accuracy for each objective for each segment of each session based on the number of opportunities for response available (e.g., 6/10 responses); (2) *Select* activities and materials that *support* attaining objectives during each segment of each session; (3) Gather data based on the opportunities for response available during each segment of each session and *defend* the data by recoding 25% of each segment (by reviewing video recordings). "Level and Degree of Knowledge" includes conceptual, procedural, and metacognitive. "Desired Cognitive Processes This Date" are apply, analyze, evaluate, and create. Because the demands for data collection are ongoing, for the rest of the semester Mia will be working on the same "Desired Cognitive Processes This Date" and "Desired Learning Behaviors for Next Session." "Outcomes Achieved" will be noted during each supervision session.

In summary, in Mia's example, progress from simple to complex learning is not the target. The adult experiential learning model allows an intermediate student to focus in on a particular area of skill enhancement.

Conclusions

Our purposes in this article have been to conceptualize an adult experiential learning model of clinical supervision and to provide a worksheet to guide its practical use. There is no prescriptive itinerary for how to use the model. Supervisors in clinical settings will by necessity adapt the model and use the worksheets in ways that benefit their circumstances. The model allows supervisors and supervisees the freedom to move forward and back along the respective continua, in response to task demands. The action-oriented aims stimulate working collaboratively toward a supervisee's greater learning.

Various authors have directed considerable attention to models of adult experiential learning (Clark, 2011; Jarvis, 2006; Kolb, 1984; Kolb & Fry, 1975; Moore, 2013), reflective professional practice (Schon, 1987), metacognition (Tobias & Everson, 2009), and applications of Bloom's Taxonomy (Abudi, 2010). These interesting areas of inquiry have great potential for advancing the knowledge and skills of CSD supervisors and supervisees.

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Appendix A. Clinical Supervision Worksheet

Student Name: _____ Date: _____
Supervision Session #:_____

Client Population: _____ Client Initials: _____
Supervisor: _____ _____

Table 1. Clinical Supervision Worksheet

Learning Goals	Level and Degree of Knowledge	Desired Cognitive Processes	Learning Behaviors This Date	Desired Learning Behaviors for Next Session	Plan for Session	Outcomes Achieved
1.	☐Factual ☐Conceptual ☐Procedural ☐Metacognitive	☐Remember ☐Understand ☐Apply ☐Analyze ☐Evaluate ☐Create	☐Non-Learning ☐Pre-conscious ☐Practice ☐Memorization ☐Contemplation ☐Reflective Practice ☐Experimental	☐Non-Learning ☐Pre-conscious ☐Practice ☐Memorization ☐Contemplation ☐Reflective Practice ☐Experimental		☐Non-Learning ☐Pre-conscious ☐Practice ☐Memorization ☐Contemplation ☐Reflective Practice ☐Experimental
2.	☐Factual ☐Conceptual ☐Procedural ☐Metacognitive	☐Remember ☐Understand ☐Apply ☐Analyze ☐Evaluate ☐Create	☐Non-Learning ☐Pre-conscious ☐Practice ☐Memorization ☐Contemplation ☐Reflective Practice ☐Experimental	☐Non-Learning ☐Pre-conscious ☐Practice ☐Memorization ☐Contemplation ☐Reflective Practice ☐Experimental		☐Non-Learning ☐Pre-conscious ☐Practice ☐Memorization ☐Contemplation ☐Reflective Practice ☐Experimental
3.	☐Factual ☐Conceptual ☐Procedural ☐Metacognitive	☐Remember ☐Understand ☐Apply ☐Analyze ☐Evaluate ☐Create	☐Non-Learning ☐Pre-conscious ☐Practice ☐Memorization ☐Contemplation ☐Reflective Practice ☐Experimental	☐Non-Learning ☐Pre-conscious ☐Practice ☐Memorization ☐Contemplation ☐Reflective Practice ☐Experimental		☐Non-Learning ☐Pre-conscious ☐Practice ☐Memorization ☐Contemplation ☐Reflective Practice ☐Experimental

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4.	☐Factual ☐Conceptual ☐Procedural ☐Metacognitive	☐Remember ☐Understand ☐Apply ☐Analyze ☐Evaluate ☐Create	☐Non-Learning ☐Pre-conscious ☐Practice ☐Memorization ☐Contemplation ☐Reflective Practice ☐Experimental	☐Non-Learning ☐Pre-conscious ☐Practice ☐Memorization ☐Contemplation ☐Reflective Practice ☐Experimental		☐Non-Learning ☐Pre-conscious ☐Practice ☐Memorization ☐Contemplation ☐Reflective Practice ☐Experimental

Appendix B. Clinical Supervision Worksheet

Student Name: Carol_____ Date: 08/10/2013_____
Supervision Session #: 1 _____

Client Population: Adult Language/Adult Motor Speech   Client Initials: MR__ Supervisor:
Tom_____

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Table 2. Clinical Supervision Worksheet

Learning Goal	Level and Degree of Knowledge	Desired Cognitive Processes	Learning Behaviors This Date	Desired Learning Behaviors for Next Session	Plan for Next Session	Outcomes Achieved
1. Administer Western Aphasia Battery-Revised according to directions	☐Factual	☐Remember	☐Non-Learning	☐Non-Learning	Practice test by giving test to 2 friends following all directions in manual	☐Non-Learning
	☐Conceptual	☐Understand	☐Pre-conscious	☐Pre-conscious		☐Pre-conscious
	☒Procedural	☒Apply	☐Practice	☒Practice		☒Practice
	☐Metacognitive	☐Analyze	☒Memorization	☐Memorization		☐Memorization
		☐Evaluate	☐Contemplation	☐Contemplation		☐Contemplation
		☐Create	☐Reflective Practice	☐Reflective Practice		☐Reflective Practice
			☐Experimental	☐Experimental		☐Experimental
2. Administer Frenchay Dysarthria Assessment, 2nd ed. according to directions	☐Factual	☐Remember	☐Non-Learning	☐Non-Learning	Practice test by giving test to 2 friends following all directions in manual	☐Non-Learning
	☐Conceptual	☐Understand	☐Pre-conscious	☐Pre-conscious		☐Pre-conscious
	☐Procedural	☒Apply	☐Practice	☒Practice		☒Practice
	☐Metacognitive	☐Analyze	☒Memorization	☐Memorization		☐Memorization
		☐Evaluate	☐Contemplation	☐Contemplation		☐Contemplation
		☐Create	☐Reflective Practice	☐Reflective Practice		☐Reflective Practice
			☐Experimental	☐Experimental		☐Experimental

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3. Elicit language sample using conversation starter cards	☐Factual	☐Remember	☒Non-Learning	☐Non-Learning	Practice conversation with friend using at least 3 conversation starter cards	☐Non-Learning
	☐Conceptual	☐Understand	☐Pre-conscious	☐Pre-conscious		☐Pre-conscious
	☒Procedural	☒Apply	☐Practice	☒Practice		☒Practice
	☐Metacognitive	☐Analyze	☐Memorization	☐Memorization		☐Memorization
		☐Evaluate	☐Contemplation	☐Contemplation		☐Contemplation
		☐Create	☐Reflective Practice	☐Reflective Practice		☐Reflective Practice
			☐Experimental	☐Experimental		☐Experimental

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Appendix C. Clinical Supervision Worksheet

Student Name: Carol_____ Date: 08/17/2013_____
Supervision Session #: 2 _____

Client Population: Adult Language/Adult Motor Speech   Client Initials: MR
Supervisor: Tom_____

Table 3. Clinical Supervision Worksheet

Learning Goal	Level and Degree of Knowledge	Desired Cognitive Processes	Learning Behaviors This Date	Desired Learning Behaviors for Next Session	Plan for Next Session	Outcomes Achieved
1. Perform language sample analysis	☐Factual	☐Remember	☒Non-Learning	☐Non-Learning	Perform language sample analysis using directions given during supervision session.	☐Non-Learning
	☐Conceptual	☐Understand	☐Pre-conscious	☐Pre-conscious		☐Pre-conscious
	☒Procedural	☐Apply	☐Practice	☒Practice		☐Practice
	☐Metacognitive	☒Analyze	☐Memorization	☒Memorization		☐Memorization
		☐Evaluate	☐Contemplation	☐Contemplation		☐Contemplation
		☐Create	☐Reflective Practice	☐Reflective Practice		☐Reflective Practice
			☐Experimental	☐Experimental		☐Experimental
2. Use data from formal and informal diagnostic procedures to write a diagnostic report	☐Factual	☐Remember	☐Non-Learning	☐Non-Learning	(1) Think about how the client's impairment affects communication function (2) Write up diagnostic report and include overall statement of communication function using assessment data to support the statement	☐Non-Learning
	☒Conceptual	☐Understand	☐Pre-conscious	☐Pre-conscious		☐Pre-conscious
	☐Procedural	☐Apply	☐Practice	☐Practice		☐Practice
	☐Metacognitive	☐Analyze	☒Memorization	☐Memorization		☐Memorization
		☒Evaluate	☐Contemplation	☒Contemplation		☐Contemplation
		☐Create	☐Reflective Practice	☒Reflective Practice		☐Reflective Practice
			☐Experimental	☐Experimental		☐Experimental

3. Write an initial therapy plan based on diagnostic findings	☐Factual	☐Remember	☒Non-Learning	☐Non-Learning	Use assessment data to determine client's strengths and weaknesses and apply this information to a therapy plan that includes consideration of both strengths and weaknesses	☐Non-Learning
	☐Conceptual ☒Procedural ☐Metacognitive	☐Understand ☒Apply ☒Analyze ☒Evaluate ☐Create	☐Pre-conscious ☐Practice ☐Memorization ☐Contemplation ☐Reflective Practice ☐Experimental	☐Pre-conscious ☐Practice ☐Memorization ☐Contemplation ☒Reflective Practice ☐Experimental		☐Pre-conscious ☐Practice ☐Memorization ☐Contemplation ☐Reflective Practice ☐Experimental
4. Administer planned therapy activities	☐Factual	☐Remember	☒Non-Learning	☐Non-Learning	Practice completing planned therapy activities with a friend twice	☐Non-Learning
	☐Conceptual ☒Procedural ☐Metacognitive	☐Understand ☒Apply ☐Analyze ☐Evaluate ☐Create	☐Pre-conscious ☐Practice ☐Memorization ☐Contemplation ☐Reflective Practice ☐Experimental	☐Pre-conscious ☒Practice ☐Memorization ☐Contemplation ☐Reflective Practice ☐Experimental		☐Pre-conscious ☐Practice ☐Memorization ☐Contemplation ☐Reflective Practice ☐Experimental

Appendix D. Clinical Supervision Worksheet

Student Name: _Mia_____ Date: _July 10, 2013_____
Supervision Session # 10 (week 5) _____

Client Population: Child Language and Phonology   Client Initials: _CJ & RO_____
Supervisor: Naomi_____

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Table 4. Clinical Supervision Worksheet

Learning Goals	Level and Degree of Knowledge	Desired Cognitive Processes	Learning Behaviors This Date	Desired Learning Behaviors for Next Session	Plan for Session	Outcomes Achieved
1. *Recommend* criteria for accuracy for each objective for each segment of each session based on the number of opportunities for response available (e.g., 6/10 responses)	☐Factual	☐Remember	☐Non-Learning	☐Non-Learning	Collect data during all activities for both clients; Use data in order to better prioritize her clients' needs; Contribute activities for all four segments of the session that closely match her clients' needs	☐Non-Learning
	☒Conceptual ☒Procedural ☒Metacognitive	☐Understand ☐Apply ☒Analyze ☒Evaluate ☐Create	☐Pre-conscious ☐Practice ☐Memorization ☒Contemplation ☒Reflective Practice ☒Experimental	☐Pre-conscious ☐Practice ☐Memorization ☐Contemplation ☐Reflective Practice ☐Experimental		☐Pre-conscious ☐Practice ☐Memorization ☐Contemplation ☐Reflective Practice ☐Experimental
2. *Select* activities and materials that *support* attaining objectives during each segment of each session	☐Factual	☐Remember	☐Non-Learning	☐Non-Learning	Collect data during all activities for both clients; Use data in order to better prioritize her clients' needs; Contribute activities for all four segments of the session that closely match her clients' needs	☐Non-Learning
	☒Conceptual ☒Procedural	☐Understand ☒Apply	☐Pre-conscious ☐Practice	☐Pre-conscious ☐Practice		☐Pre-conscious ☐Practice

	⊠Metacognitive	⊠Analyze ⊠Evaluate ⊠Create	□Memorization ⊠Contemplation ⊠Reflective Practice ⊠Experimental	□Memorization □Contemplation □Reflective Practice □Experimental		□Memorization □Contemplation □Reflective Practice □Experimental
3. Gather data based on the opportunities for response available during each segment of each session and *defend* the data by recoding 25% of each segment (by reviewing video recordings).	□Factual	□Remember	□Non-Learning	□Non-Learning	Collect data during all activities for both clients; Use data in order to better prioritize her clients' needs; Contribute activities for all four segments of the session that closely match her clients' needs	□Non-Learning
	⊠Conceptual ⊠Procedural ⊠Metacognitive	□Understand □Apply ⊠Analyze ⊠Evaluate □Create	□Pre-conscious □Practice □Memorization ⊠Contemplation ⊠Reflective Practice ⊠Experimental	□Pre-conscious □Practice □Memorization □Contemplation □Reflective Practice □Experimental		□Pre-conscious □Practice □Memorization □Contemplation □Reflective Practice □Experimental