The Evaluation of Critical Thinking Skills in Clinical Practicum Students

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Critical thinking, according to Paul and Elder (2000), is a process of continuous improvement in one's quality of thinking about problems. According to Crist (2001), a critical thinker will raise relevant, precise questions, demonstrating the use of past experience blended with knowledge; analyze and interpret experiences from the assessment of relevant information; provide reasoned conclusions and recommendations based on frames of reference and standards for professional performance; modify thinking based on practical implications that demonstrate self-correction of thinking in atypical or unique situations; and communicate effectively with others in negotiating complex problems.

ASHA has recognized the vital importance of critical thinking in clinical education, as seen in the revised speech-language pathology standards to be implemented in 2005. These standards include provisions for both formative and summative assessment, which must evaluate critical thinking, decision making, and problem solving skills. Facione and Facione (1994) noted that a good critical thinker engages in analysis, interpretation, evaluation, inference, explanation, and metacognitive self-regulation and included systematicity, reasoning self-confidence, cognitive maturity, analyticity, and inquisitiveness as other critical thinking skills.

While the discipline of communication sciences and disorders has acknowledged the contribution of critical thinking to the clinical process, the focus in many of the academic classes has been on the presentation and retention of factual information. Thus, the experience of many students in the discipline has been repetition or paraphrase, rather than critical manipulation of information in the clinical process. In addition, while the evaluation of student application of academic information to clinical practicum has, in an indirect fashion, addressed some critical thinking skills, the evaluation has tended to focus on clinical performance rather than processes involved in clinical decision-making. Our aim is to enhance the evaluation process for student clinicians with the presentation of a tool that will enable clinical instructors to assess critical thinking skills in a more direct, more detailed manner.

This framework consists of a form that clinical instructors can use to assess the critical thinking skills demonstrated by undergraduate or graduate students in clinical practicum. A description of this form follows.

This framework commences with a focus on four areas of critical thinking: Knowledge, Creativity, Integration, and Analysis. *Knowledge* refers to the extent of the philosophical and practical information a student clinician possesses related to normal and non-normal communication. *Creativity* refers to flexibility and the ability to improvise with the information at hand. *Integration* refers to the relation of factual information and the ability to discern themes across diverse details. *Analysis* refers to comparing and contrasting ideas, as well as critiquing processes and products.

This framework continues with a collection of salient steps in the service provision process. Group I items represent steps in the preparation for the evaluation (e.g., review of client history information, formulation of client diagnostic hypothesis, critique of client diagnostic hypothesis, formulation of clinical evaluation questions, procurement of needed client history information, preparation of client diagnostic plan). These steps, as needed, could be replicated for a re-evaluation process. Group II items represent steps in the implementation of the evaluation (e.g., implementation of client diagnostic plan, modification of client diagnostic plan, test of client diagnostic hypothesis, formulation of client recommendations). As before, these steps, as needed, could be replicated for a re-evaluation process. Group III items represent steps in the preparation of intervention (e.g., formulation of client overall goals, formulation of client short-term goals, decision on intervention framework, selection of intervention methods, selection of intervention materials, measurement of treatment effectiveness, preparation of treatment plan). Group IV items represent steps in the implementation of intervention (e.g., implementation of treatment plan, modification of treatment plan, dismissal of client, follow-up with client), while Group V items represent written clinical communication and oral clinical communication. Form 1 includes this list of competencies, which the readers can adapt to their particular work sites when expectations for student performance so dictate.

For each of the steps in the service provision process, the clinical instructor can evaluate the critical thinking skills of the student clinician in the areas of Knowledge, Creativity, Integration, and Analysis. The specific evaluation criteria, operational in nature, for each particular step would be listed in each of these areas. Within each of the steps in the service provision process, the clinical instructor would place the student clinician at a particular level of expertise in a continuum.

Level #1 would be the *Basic Level* of the skill. This would reflect a minimum level of critical thinking skill, with some application of critical thinking to basic clinical tasks. A student clinician at this level would need considerable, direct assistance from a clinical instructor in the completion of critical thinking tasks. Level #2 would be the *Intermediate Level* of the skill. This would reflect a more extensive level of critical thinking skill. A student clinician at this level would be able to complete some tasks in an independent fashion. Level #3 would be the *Advanced Level* of the skill. A student clinician at this level would be able to complete tasks in an independent fashion and would depend on the clinical instructor for consultation rather than direct assistance. At the conclusion of an evaluation of a student clinician, the clinical instructor will be able to create a profile of critical thinking skills of that student. This will assist in planning instructional strategies to enhance the skills in the domains in which student clinicians could improve.

Form 2 redistributes the competencies from Form 1 into the broad areas of Knowledge, Creativity, Integration, and Analysis. Of course, most of the competencies span the scope of multiple areas and require that students demonstrate skills across these dimensions of critical thinking. The decision to place competencies in specified areas was based on the determination of the most sophisticated areas dictated in the competencies. For instance, if the most sophisticated critical thinking skill in a competency was that of creativity, the competency appears there; if, on the other hand, a competency also involved analysis, then the competency appears in that area, its most sophisticated critical thinking demand. After the supervisor discerns whether student performance is consistent with Basic, Intermediate, or Advanced for each skill, then he or she can determine the preponderance of scores. This information serves as the basis for adjustment of clinical instructional methods and allows the supervisor to know whether a broad focus on enhancing critical thinking or, instead, a more specific focus on critical thinking while completing particular clinical challenges, is a more effective use of instructional time.

Our aim is to continue to define critical thinking tasks inherent in the student clinician preparation in order to refine our evaluation of the extent to which the student has demonstrated critical thinking skills. Our eventual aim is to expand this process into applications for CFY and more experienced clinicians, as well as for supervisors themselves. We would welcome your use of and reaction to our present document in your supervision process.

References

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