Developing Counseling Skill Using the Landro Play Analyzer (LPA): A Grounded Theory

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Abstract

This qualitative study investigated personal accounts of autonomy and reliance of 5 counselors-in-training who used the Landro Play Analyzer during supervision of counseling skills. In-depth interviews, researcher memos, participant follow-up, and collaborative data analysis were used. A theoretical model was developed describing (a) causal conditions that underlie factors that facilitate or inhibit strategies for autonomy or dependence, (b) phenomena that emerged from those conditions, (c) the context influencing strategy development, (d) intervening conditions influencing strategy development, (e) actual strategies influencing interaction with self and supervision, and (f) consequences of those strategies. Implications for counselors and counselor educators are addressed.

Rapid changes in technology in the twenty-first century have provided numerous resources and tools for advancing education across various disciplines (Moore, 2007). The use of technology-based methods in educational programs has been recognized as an effective tool to enhance learning (Huhra, Yamokoski-Maynhart, & Prieto, 2008; Janda, 1992; Jones & Smith, 1992; Poirot, 1992). Hayes and Robinson (2000) showed increasing support for the use of web-based instruction, multimedia and advanced educational software to enhance educational strategies across disciplines. Accreditation guidelines mandate the integration of technology into counselor education practice as a means of demonstrating competence in an ever-changing world (Council for Accreditation of Counseling and Related Educational Programs [CACREP], 2009). Identifying all technological advancements in counselor education could be endless, thus the need for highlighting individual experiences with technology-based methods in areas of supervision, research, and the development of basic counseling skills can contribute to identifying effective counselor education techniques.

Historically, counselor educators have been encouraged to include new technology in their pedagogical practices (Baggerly, 2002). The use of audio-visual recording devices, digital recording software, and the increase in online training programs that include web-based methods used to promote skill development are evidence of the chronological advancements with technology in counselor training programs over the past fifty years (Baltimore & Crutchfield, 2003). This increase in new methods of counselor training and instruction can ultimately enhance the learning process as counselor educators attempt to stay technologically current by incorporating cutting-edge technology with the goal of improving basic counseling skills.

Counselor education training programs accredited by the Council for Accreditation of Counseling and Related Education Programs (CACREP) are expected to prepare counselors to demonstrate "essential interviewing and counseling skills" (CACREP, 2009, section II.5.c). The counseling program in which the research team completed the current study includes the demonstration of such essential counseling skills across students' first semester pre-practicum skills course, as shown in Table 1.

Table 1

Basic Counseling Skills Taught in a Pre-practicum Skills Course

Verbal and non-verbal attending behavior
Empathic responding
Showing respect for the client
Being genuine and congruent with clients
Being concrete with client concerns
Reflecting client's feelings
Paraphrasing client's content statements
Summarizing sessions both during and at the end
Encouraging clients to continue talking
Being non-judgmental towards the client's behavior and concerns
Advanced empathy
Appropriate self-disclosure
Use of immediacy statements
Recognizing client patterns of thinking and behaving
Helping clients to focus on main issues
Encourage clients to look deeply within themselves and to continue counseling
Using probes to further counseling sessions
Pointing out client conflicts and inconsistencies
Confronting client blind spots and mixed messages

Students in the program develop the skills with peer "client" volunteers while under the direct supervision of faculty and doctoral students. Several methods of live supervision are implemented during the supervision session, including audio/video taping and bug-in-the-ear (BITE) as means of providing immediate supervisory feedback with the counselor trainee (Bernard & Goodyear, 2004). Students are required to record each practice session for future review and identification of the aforementioned skills in preparation for supervision. This procedure, which focuses on skill development, occurs across a fifteen-week semester.

In the location in which the study was conducted, feedback given was based on Bernard's Discrimination Model of counselor supervision (Bernard & Goodyear, 2004), which involves the identification of counselor trainee strengths and areas of improvement based on client conceptualization, skill-based intervention, and possible indication of personalization issues that may influence the progress of the session. During class time, they give and receive live feedback in these three areas, and during individual supervision, they are given feedback on their recorded counseling sessions in the three areas. By using this model, students learn to effectively evaluate their use of counseling skills.

A traditional method of reviewing counseling sessions on videotape (via a Video Cassette Recorder) can be lengthy and daunting, as it requires significant time to locate specific sections for review and feedback, and can divert supervision time away from providing specific feedback to better meet the needs of clients. A faster, more convenient alternative to videotape review is a current technological advance in the area of digital recording equipment, the Landro Play Analyzer (LPA). Commonly used with high school football programs, the LPA is a digital recording, analysis and playback device used only in a small number of counseling programs for immediate recall, review and analysis of recorded counselor training sessions.

In the academic program in which the current study was conducted, the LPA was installed on computers in the counseling department, and the computers were connected to recording equipment (video cameras and microphones) in each counseling clinic room. Students were able to digitally record counseling sessions in the clinic rooms via the LPA, and could then later access their sessions by signing onto a computer on which the LPA was installed. The LPA was password protected on the computers, and each student was assigned a unique login name and password, giving them access only to their own work. After recording a session, a student could sign in to the LPA via computer to review and categorize the skills used in session.

The use of the LPA can save countless hours of videotape review time by providing a more effective method of identifying and practicing basic counseling skills. The LPA empowers counselors and supervisors to use their sessions more effectively by utilizing time otherwise prolonged by attempts to locate specific incidents during previous sessions. The use of the LPA in counselor training has refined counselor development and service delivery while meeting student learning objectives. Landro Play Analyzer streamlines the time spent in supervision by storing recorded counseling sessions digitally and allowing users to segment and label specific pieces of the recording (play segments) for future analysis. For example, paraphrasing is a basic counseling skill. Students can review their tapes and mark and code each use of paraphrasing during a session. During supervision the students can easily access all marked "clips" that include paraphrasing to show their supervisors. The goal is to allow supervisors and students to quickly find and review pertinent aspects of sessions in order to improve performance and session effectiveness.

Currently, literature identifying the use of LPA-based supervision in counselor training programs is nearly non-existent. Recent research highlighting the application of LPA in counselor training and clinical supervision has not been inclusive of the developmental learning process that occurs through the use of LPA. Furthermore, few studies have been conducted to include a detailed description of the experience and process of counselors-in-training use of technological devices to enhance skill development. The purpose of this study was to identify the experience and process of using technological-based methods, specifically the Landro Play Analyzer, during clinical supervision of students' development of basic counseling skills.

Research Question

This study intended to answer the question: What is the process and experience of using the LPA in supervision? As mentioned, the LPA is a new technology that is in use in a small number of counselor training programs and is intended to aid in students learning and implementation of basic counseling skills. Examining the use of the LPA during the supervision

process can provide further information for counselor educators to consider in the development of basic counseling skills through the integration of the LPA technology.

Qualitative Method

A qualitative approach was chosen to better understand the process and experience of counseling students using the Landro Play Analyzer during the supervision of their skill development in a pre-practicum skills class. As a team of researchers, we were positioned as *observers* of the participants' experiences using LPA during supervision; at the time of the study, we were also doctoral students working directly with the master's student participants. A qualitative research method was chosen for its capacity to capture multiple realities and its adaptability to numerous shaping influences and value patterns that may be encountered.

Grounded Theory

Grounded theory methodology (GTM) is a qualitative research design in which the inquirer generates a general explanation (theory) of a process, action, or interaction shaped by the views of the participants (Corbin & Strauss, 2008). The philosophical stance of the researchers was based on the systematic procedure of Strauss and Corbin, which allows for the investigator to develop a theoretical model explaining the interactive meanings and perspectives of participants. The primary purpose of this article is to present a model describing the ways in which five graduate level counseling students developed autonomy or reliance on Landro-based supervision in conjunction with their skill development while at a mid-sized university in the northwest United States.

Conceptual Context

Early Counselor Education literature, including models of skill development, were tested on samples and populations other than those of interest to us as researchers, but were focused only on cognitive skill in a general setting (Little, Packman, Smaby & Maddux, 2005; Morran, Kurpius, Brack & Brack, 1995). The grounded theory method is appropriate for this study, as it is aligned with the research goal of generating a theory for understanding the process and experience specifically relating to students using LPA-based supervision in the development of basic counseling skills.

Research Site

A mid-sized university in the northwest United States was the primary research site. As the use of LPA is new in the counseling profession, opportunities to extend the research to any other institution were limited. The interviews were conducted in the department's clinic rooms with closed-circuit cameras connected to the LPA. The interviews took place in the same clinic rooms where participants received LPA-based supervision.

Participants

Participants volunteered to use the LPA system for the duration of the semester and the current study on the first day of their pre-practicum skills class. Because there were more volunteers than needed for the study, research participants were chosen at random from the volunteer pool. Each participant had an understanding that in choosing to have LPA as a part of their learning experience, they were giving consent to be a part of the research study. A more

formal informed consent was given and discussed prior to the initial interview. The participant group consisted of two men and three women.

Data Collection and Interview Questions

Theoretical sampling was used to help the researchers generate the grounded theory. Theoretical sampling enables researchers to discover the concepts that are relevant to a specific question and population, and allows the researchers to explore the concepts in depth. Theoretical sampling is especially important when studying new or uncharted areas because it allows for discovery (Corbin & Strauss, 2008). Engaging in theoretical sampling requires a *zigzag* approach where the researcher takes one step at a time with data gathering, followed by analysis, followed by more data gathering until a category reaches *saturation* in which no new information obtained can provide further insight into a particular category (Creswell, 2007).

The participants had experience with the LPA system and at the time of inquiry were enrolled in a pre-practicum basic skills course. Each participant was informed that identifying information would be kept confidential and gave consent to participate. Interviews consisted of open-ended questions designed to illicit honest reflection on participants' experiences using the LPA and the processes by which they constructed meaning of their experiences. Participants responded to the question: "What is your experience using the LPA in supervision?" Follow-up questions were used to clarify each participant's responses to the initial question.

Data Analysis

After extensive exploration of two rounds of recorded interviews, resulting transcript data, research team meetings, and researcher memos, the process of *open coding* was conducted and repeated. Here, categories of text about the descriptive experiences using the LPA-based supervision were identified by segmenting the information into individual words, sentences, and key phrases. This coding process included *axial coding* where the research team connected additional codes and their subcategories to further discover the emergent categories. *Selective coding* occurred as the research team systematically selected the core category and compared its relationship with other categories in order to develop and refine the core category. Themes emerged through ongoing conversation between the researchers and the external auditor while reflecting on the research purpose so as to verify consistency of codes with the textual interview data. The reflective process occurred consistently and repeatedly until saturation was reached; or no new categories were identifiable from the existing data.

The analysis included the development of a logic diagram to represent the axial coding procedures that were followed. This diagram aided in identification of the central phenomenon, causal conditions, specific strategies, the context and intervening conditions that lead to the delineation of the consequences for this phenomenon. The coding procedures practiced by each member of the research team included thorough note taking in order to supplement and challenge any ideas about the evolving theory throughout the process of open, axial, and selective coding (Corbin & Strauss, 2008).

Trustworthiness

Validity in qualitative terms is different from the traditional positivist viewpoint of validity taken in quantitative research that cannot be accomplished through a logical set of

procedures (Maxwell, 2005). Instead, this research team included procedures for achieving *trustworthiness,* as outlined by Creswell (2007) and included criteria identified by Whittemore, Chase, and Mandle (2001) to ensure *credibility; authenticity; criticality;* and *integrity* (Creswell, 2007, p. 206). *Credibility* is assured when the results include an accurate interpretation of the participants' experience through thick description of the "*events, incidents,* and *actions"* (p. 216). This was assured as the open codes were presented to the participants and used to guide the second round of interview questions as well as the factors that influenced the emergent categories. *Authenticity* occurs as the results are inclusive of the various participant voices and was assured through the initial sampling of participants. *Criticality* occurs when all aspects of the research are critically appraised. This standard was assured as the research team included a broad source of data collection from multiple sources including audiotape, videotape and journals from the participants in the study. The multiple sources of data were further analyzed and triangulated to ensure accurate representation of the emergent categories and themes through ongoing discourse with one another in conjunction with the external auditor. Further, the research team paid close attention to the *integrity* of the emergent themes throughout the analysis process and presented those themes to the external auditor who verified each theme was grounded in the participant accounts from interview transcripts. The peer reviewer asked challenging and difficult questions about the research team's stance and position in the study as this pertained to their role as researchers.

Role and Position of the Researchers

The research team was comprised of four doctoral level counselor education researchers and one tenured faculty member. The study was conducted as a requirement of a doctoral level qualitative methodology course. The researchers had a personal and professional investment in the project and were motivated to fulfill an academic requirement as well as learn to conduct a grounded theory study. Thus, recognizing the position and role of the researchers in this context aids in providing focus for conducting and subsequent completion of this study.

One member of the research team was positioned as a direct supervisor to the participants. Therefore, the participants were given the opportunity to remove themselves from participating due to potential dual relationships. Intentionally acknowledging the dual role as both supervisor and researcher was openly discussed with the participants in an effort to eliminate potential bias and apprehension on the part of both the researchers and participants. In addition, a stance of curiosity was taken surrounding the LPA as the participants, too, were learning the advances of the technology. Not knowing the capabilities of the technology created further opportunity to look toward the interview transcripts as a source for participants to openly share their experience. The research team's stance of *not-knowing* was necessary to ensure rigorous data analysis and identification of concepts that would adequately reveal individual experiences and result in an emergent theory. The grounded theory model of the experience of using LPA-based supervision in the development of basic counseling skills developed from this study is present in Figure 1.
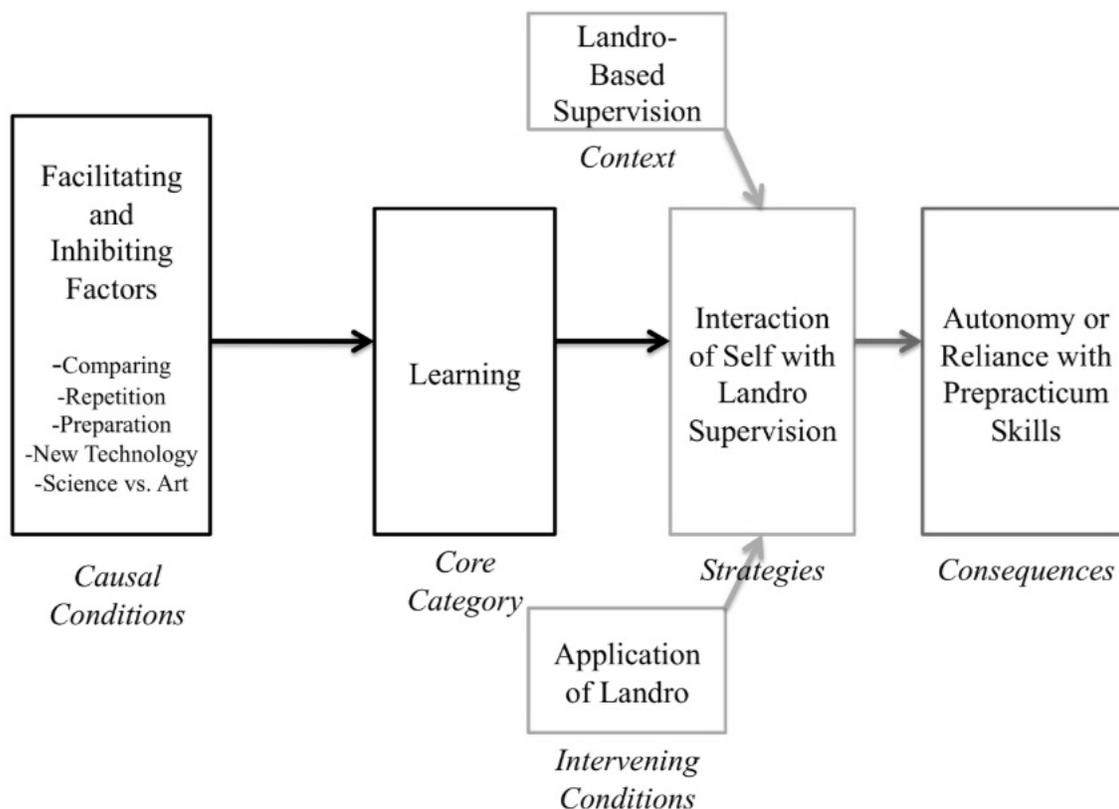
Figure 1: Theoretical model for autonomy and reliance on LPA-based supervision in developing counseling skill.

Emergent Themes

Interview transcripts were analyzed in order to develop concepts and categories through open, axial and selective coding procedures, as outlined by Corbin and Strauss (2008). Participants' responses were organized based on causal conditions of the phenomena of developing counseling skill while experiencing LPA-based supervision. These conditions were (a) *facilitating factors*, and (b) *inhibiting factors*, and include descriptions of sub-categories that offered further depth into these conditions.

Facilitating Factors

As participants learned how to use the Landro Play Analyzer and concurrently learned how to use counseling skills, they discussed factors that helped facilitate their process of learning how to recognize their skills as a counselor. Sub-categories that emerged were (a) ease and (b) supervision.

Ease. One of the most prominent attributes of the LPA reported by participants was the ease of using it. Properties of "ease" that emerged were accessibility, quickness, and convenience. Participants who used the LPA described being especially pleased with its accessibility. One participant remarked that using the LPA was "a lot less hassle" than using

videotape technology because "it's all in the database." Participants liked having their work all in one organized location.

Another property that contributed to the *ease* of using the system was how efficient and user-friendly the system was. Participants described the "quick" manner in which they were able to sign in with a password and access all of their work in one place within seconds. The viewing and coding processes were also quick, as noted by one participant who considered the process quicker than it would be using videotape technology:

> (It's) much quicker. And I think it makes certain parts of it easier, like when we're going through the mid-terms and stuff instead of having to push, you know, rewind and then moving too far, you can just drag the little thing (an electronic cursor which marks time on the recorded material).

For graduate students for whom time is always a necessary consideration, quickness of accessibility and use were factors that facilitated learning in a positive manner.

Participants also experienced the LPA as convenient. One participant liked "having it digital like that, where I can just go in and start." Another participant stated that using the LPA had "been really convenient. I think a lot more convenient than having to watch a tape, watch the time and be watching for those cues. It's right there." Another participant summed up the ease of using the LPA, including its accessibility, quickness, and convenience, in one statement:

> I just think it's just so more accessible. It's so much more accessible to like right after class. Sometimes like I'll struggle on my summary or struggle at some point. It's so easy to know around what time that was, to type it in and it pops right to around that time and then it's so easy to fast forward with the little marker. Fast forward and rewind and find exactly that spot. Watch that spot, learn from it and then move on.

As learning counseling skills can be challenging for students, using the LPA made recording and watching skills easy, so that participants had more time to focus their practice on skill development.

Supervision. Another sub-category that facilitated participants' learning of counseling skills was being able to use the LPA during supervision sessions. Participants typically engaged in-group supervision during their class periods, and then met with supervisors outside of class once a week. These outside sessions were individual sessions, and participants were expected to come prepared with a recorded session already coded on the LPA. Then they would meet with their supervisors and go through the recorded session using the LPA, sometimes watching entire sessions and other times skipping to the coded skills. Where supervision was concerned, participants described it as "focused" and "detailed," properties that will be discussed.

Participants reported an appreciation of how focused supervision sessions were when using the LPA. One participant reported liking the focused supervision "because when we're in there it's nice to have…just more one-on-one and they (the supervisors) can go through it and they can see where you've been doing certain things." Using the coded recordings, users of the

LPA can skip to the codes and look at specific skill interventions rather than having to watch entire sessions, which participants reported gave supervision a clear focus.

Focused supervision and the ability to jump between codes and watch specific skill interventions also gave participants the impression that supervision was more detailed than it would be without the LPA. One participant reflected on the supervision process, "I mean while that certainly has some value to watch the thing in the entirety, it's still better than nothing to just go ahead and go and look at specific things. If they're (the supervisors) looking for specific things." Overall, participants felt that their supervision sessions were extremely efficient due to use of the LPA in supervision. One participant articulated simply that the LPA "definitely helps supervision go a lot smoother." Another summarized, "I guess it makes the supervision meeting a little bit more rich experience."

Inhibiting Factors

The second causal condition included inhibiting factors that LPA had on participant skill development. Through data analysis, ongoing researcher dialog, and continued reflection, the following sub-categories emerged (a) limited resources, (b) time consumption and (c) learning curve.

Limited resources. One factor that inhibited learning in particular was that due to the expense of the LPA technology, the department has limited resources (computers) on which participants can use the system. There is one main LPA server hooked up to four computers in the participant computer lab, and the computers are accessible to all participants. Sometimes, on busy days, the limited resources meant waiting in line for access to a computer in order to code a counseling session. Other times, waiting for an available computer with which to hold a supervision session was necessary. And still other times, when participants realized that all recorded information was held in one central location, they were fearful of the implications.

I guess the scary point to that, that I didn't really think of until now is just when computers go down or when systems crash and that kind of stuff and you lose all your work. Like we don't really have a backup and it would be easy to back it up and maybe that's something we should be doing or I should be doing. You know that would be kind of scary because then all of our progress and stuff is gone.

Time consumption. Another factor that inhibited learning using the LPA was the time that was consumed by using it. In order to be able to show coded sessions and use the LPA in supervision sessions, participants were expected to code one session each week on the system during their own time. Although participants liked being able to engage in supervision sessions with coded material, sometimes taking the time to code was frustrating to them. One participant reported being overwhelmed, and remarked, "depending on what the work loads look like for the week, that (coding) could be a burden." During interviews, phrases such as "more time," "lack of time," and "extra time" were repeatedly used. Many of the participants gave an account of their feelings of frustration in conjunction with the time commitment it took to code sessions on the LPA.

> And then it's the frustration, when I, you know, I'm sure I was more frustrated
> because I was in a hurry and I had an allotment of time that I needed to code in.
> So then that was just kind of slowing me up.

This frustration along with the extra time commitment were discussed as factors that participants experienced as holding them back from learning.

Learning curve. Another inhibiting factor that participants discussed was the learning curve associated with using the LPA. Because the processes of signing into the system, recording on the system, and using the system to playback and code sessions were all new to the participants, they had to put in more time on the front end of the program than did participants who were not using the LPA system.

> Because there was a little bit of a learning curve to learning the um, to learning
> the um, how to code on the system. Especially I, I feel like with the um, with the
> coding, like a paraphrase and a feeling reflection right back to back, just kind of
> being quick on that button.

Additionally, each participant seemed to develop his/her own process of coding, so there was no one-way to teach participants how to use the system. They each had to put in the time to figure out how it would best work for them.

> I think its just frustration like learning any new computer program. Like it was
> just getting used to it and getting comfortable to it. Finding your own way
> because I'm sure we all code differently and so it's kind of finding your own way.

Learning to use a new system, finding their own methods, and processing their fears about the technology were all factors that participants identified as inhibiting to the process of learning counseling skills.

Phenomenon Resulting from Facilitating Factors and Inhibiting Factors

Causal conditions—facilitating factors and inhibiting factors of using LPA-based supervision in developing skill as a counselor – resulted in the emergence of a core category of *Learning* as reported by the participants description of their experiences using LPA during pre-practicum supervision. Furthermore, data analysis and the continual discourse between research team members resulted in additional identification of three sub-categories to *learning*: (a) skills, (b) awareness, and (c) self-evaluation.

Skills. *Skills* are the component of learning based on the tangible acquisition of counseling skills and for this research study resulted in the identification of two properties; quantity and quality. Quantity referred to the tendency participants had to count their skills, comparing this number across sessions. Several participants indicated they would count the number of interventions they had coded in one session, and then compare it to the number they had in a different session. Because the system allows participants to look at their total number of interventions coded over the semester, participants were also able to note this number. One participant reported using this number as a means to compare their individual progress to the progress of other participants using the LPA in pre-practicum. Based on the first round of

interviews, frequency of interventions seemed to indicate positive development for some participants.

Another participant discussed comparing total number of skills used in individual sessions at different times during the semester. When realizing that fewer skills were used in earlier sessions, the participant remarked, "Okay, I really did make some progress. Being able to see that was I think what kind of cemented it for me. Yeah, we really did learn stuff and we're really using it."

Quality referred to the tendency of participants to examine individual skills. The participants often used the quality of skills utilized as a measure of personal skill development. One participant discusses his utilization of Landro technology to critically examine and compare his skill across and between sessions, "It's nice because you can actually see yourself and you can observe yourself and be like 'alright, this one is a feeling reflection', definitely the coding has helped for me to kind of track my skills."

It seems that for the participants, the experience of being able to track their skills in terms of quality and quantity was beneficial at this stage in their development. However, participants mentioned some apprehension regarding becoming too attentive to just the skill component of their development. One participant reflected:

> I've been focusing on those [individual interventions] rather than focusing on the whole session, and Landro has helped me to do that, um, and I guess if I focus just on the skills later then I can see that as being a drawback.

Participant responses indicated that they perceived the Landro system as being beneficial in examining their own skills, from both a quantity and quality perspective. In their utilization of the LPA system for pre-practicum supervision, participants indicated that they were more able to attend to their skill development by keeping track of the frequency of skills utilized over time.

Self-evaluation. Self-evaluation indicates the ability of participants to monitor and evaluate their own development. In this study, participants seemed to consider the Landro system as a beneficial tool in the self-evaluation of their own personal growth. One participant talks about how the LPA helped them to evaluate their development across time:

> And so I think it helps me improve as it gives me some confidence in what I'm doing and I feel you know, it's kind of like and I say, Okay, I can do this, like I will be okay and stuff so yeah. I think it just gives me a little bit of confidence and it just helps.

These statements indicate that participants were able to look at their own work, as opposed to relying on outside persons to do so, at least in the instances they describe. In seeing the development clearly through coding and revisiting their work, they were able to make determinations and adjustments as needed. Another participants' experience with recognizing areas of growth due to LPA included:

I can jump from code to code and see what patterns I am using as a counselor and like what I need to correct. Because it is so easy to you know, hear the doctoral students tell us what we need to correct but then to actually, umm, listen to it for yourself and be like, -wow! I really did do that.

Awareness. The ability of participants to be cognizant of habitual tendencies in session, the motivation behind their actions, and their ability to make changes in the moment, indicates awareness. Through helping participants look at skills and evaluate their work (the other sub-categories of learning), participants also perceived they became more self-aware through the use of Landro. Participant's also recognized the incongruent nature of their skill interventions, that sparked a level of awareness and encouraged them to consider the motivation behind their skill delivery in practice (Were they smiling because they were nervous, or because they were confident in the new skill they were trying, or was it the content of their intervention?) Participant recognition of these instances also encouraged them to work to change in a more expedited manner, as they became aware of when they were presenting undesirable behaviors in their recorded practice.

Discussion

Based on the codes extracted from the interview transcripts, the researchers conducted an analysis of the transcript data while revisiting their research question in order to label the themes that emerged from the participants' experiences using LPA-based supervision. When considering the causal conditions of facilitating factors and inhibiting factors, it became apparent that the theme of "learning" was central to the participants' experience. "Facilitating factors" and "inhibiting factors" were experiences participants perceived to affect their learning, whether positively or negatively.

Further examination of emergent themes led the research team to understand the process of participants' learning. In describing their learning experiences, participants discussed periods of both reliance on and autonomy from the LPA and supervision. During particularly insecure times, participants felt they could rely on the LPA and supervision for support. Other times, they felt confident in their skill development and would withdraw from interacting with the LPA altogether. Ultimately, participants seemed to appreciate being able to use the LPA for its benefits in supervision, but still relied on their supervisors for feedback. The LPA seemed to add to effective facilitation of the supervision process. Overall, participants perceived that all parts of the process contributed to their learning. The researchers developed a figure to more accurately represent the process and experience of the participants. Figure 2 below visually depicts the experience and process of using Landro-based supervision. It illustrates the many processes participants' engaged in as they learned pre-practicum skills using the LPA.
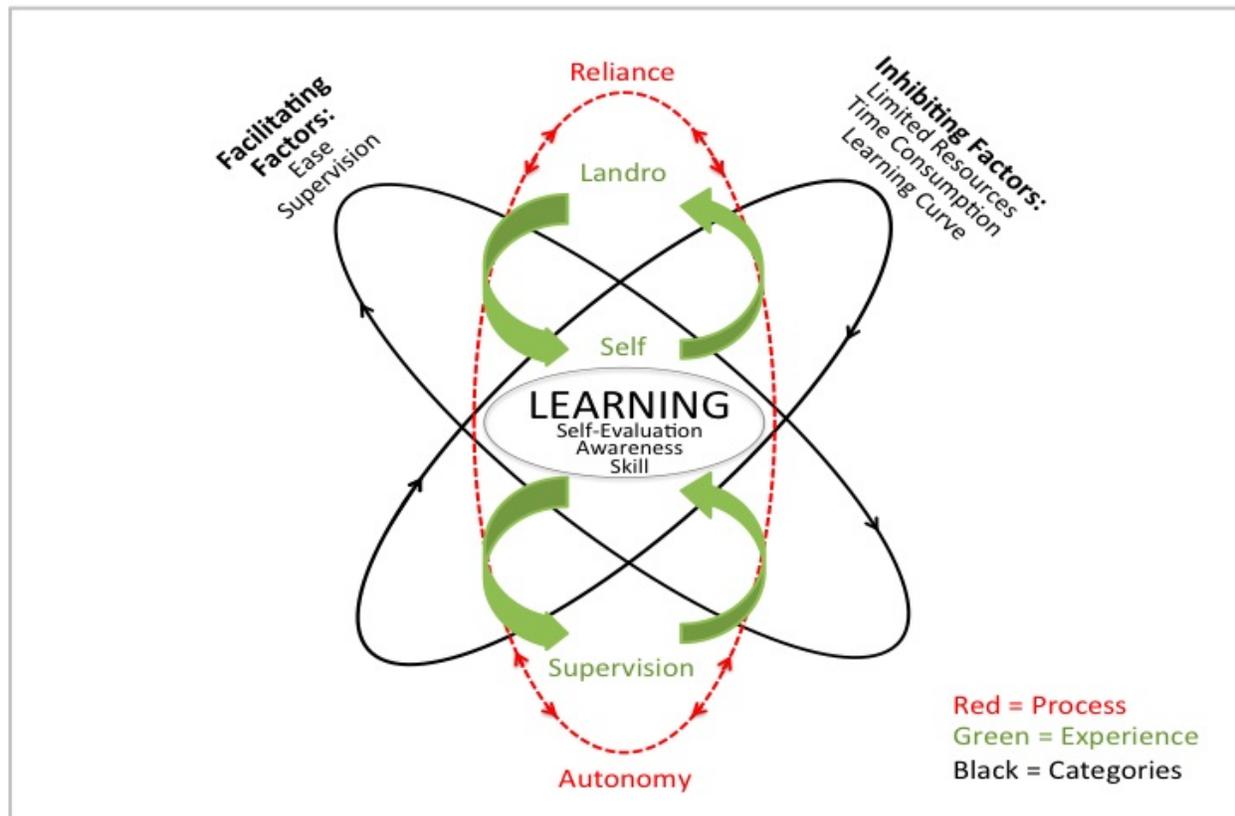
Figure 2: The experience and process of using Landro-based supervision. This figure illustrates the many processes participants' engaged in as they learned pre-practicum skills using the LPA.

Limitations

Due to the fact that the LPA technology was new to the department in which the present study was conducted, both the research team and the participants were novice LPA users. Everyone involved in the study was trained using LPA technology; however, the learning curve was salient for all participants and researchers. Because the participants were in their first semester when enrolled in the study, the learning curve could not have been avoided for them. The research team, however, was also new to using the LPA technology. Had researchers more seasoned in using the technology conducted the study, researcher familiarity with the subject matter could potentially have contributed to a different understanding of participant experience and process.

The focus of this study was to elucidate counseling student experiences with skill development while using LPA-based supervision. While the results of this study concluded that autonomy and reliance on LPA occurred in the context of counseling skill development, little information was identified surrounding the specific role the supervisor played in their actual skill development. This research highlighted participant accounts of the experience using the LPA, while additional research focusing on the supervisor's experiences using LPA could offer insight into the potential impact technology, specifically LPA, could have on counselor skill development and counselor educators use of technology in supervision.

Conclusion

The use of technologically-based methods in educational programs has been recognized as an effective tool to enhance learning (Janda, 1992; Jones & Smith, 1992; Poirot, 1992). Specifically, the Landro Play Analyzer (LPA) is a technology that is currently used in athletic training programs to identify specific aspects of each play. The use of LPA in the counseling profession is a new teaching and supervision tool that allows both teachers and students to identify effective counseling techniques and further promote learning of counseling skills. While little attention has been given to counseling students' experiences while using the LPA in the learning of basic counseling skills, this study gave voice to five individual experiences. As participants reported their experiences three major categories emerged: learning, facilitating factors, and inhibiting factors. Participants' experience showed that the LPA could be a valuable tool for students as they learn and develop basic counseling skills. Future research is needed regarding the experience of using technologically-based methods in clinical supervision. Further exploration of students' experiences using the LPA can contribute to identifying effective counselor education and supervision techniques.

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