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# FY2022 Program Evaluation of the Child Protection Training Academy for New DCFS Investigators

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## Executive Summary

Since the Child Protection Training Academy (CPTA) launched the first simulation training at University of Illinois at Springfield (UIS) in February 2016, the CPTA has trained over a thousand new child protection investigators for the Illinois Department of Children and Family Services (DCFS). Trainees receive first-hand experience learning a wide range of child protection tasks, from the first knock on a family's door to testifying in family court, guided by expert trainers and working with actors playing the family in a mock house and mock courtroom. In FY2022, the Children and Family Research Center's (CFRC) evaluation team again used multiple sub-studies to examine the effects of simulation training.

### Chapter 1: Introduction

FY2022 has been a time of transition for the simulation training program. Because of the Covid-19 pandemic, the training laboratories continued to offer simulation training virtually in both the Chicago and Springfield laboratories for most of FY2022, but then resumed live training in March 2022. Northern Illinois University joined the program and is preparing to provide simulation training for intact family service workers in FY2023. These workers serve families whose children remain in the home while DCFS keeps the case open.

Also, DCFS and UIS did not renew their contract for FY2023. This is a momentous change. UIS originated the idea of simulation training for DCFS workers, founded the program together with DCFS, delivered all the simulation training during its early years, and provided leadership for the program for its entire six-year history. In FY2022, the CFRC evaluation team again used multiple sub studies to assess simulation training, as we discuss in the below chapters.

### Chapter 2: The Daily Experience of Simulation Training (DEST) Measure

The DEST measures trainees' confidence on 13 different child protection skills. Trainees rate their confidence on each skill from 1 (low) to 7 (high). They complete a baseline DEST in the morning of Day 1 and a DEST at the end of each day, Day 1 through Day 5. The DEST also asks trainees additional questions about their on-the-job-training experience, their evaluation of the feedback and debriefing they receive in the training, and their assessment of what they learned each day. In FY2022, a total of 184 trainees participated in the simulation training, and 182 trainees (99%) completed the DEST at one time point or more. Out of 182 respondents, 154 (84.6%) completed the DEST at all six time points.

The results of one-way ANOVAs testing a linear trend (N=184) were statistically significant, indicating a significant linear increase in confidence over the course of the simulation-training week for all 13 skills, with medium to large effect sizes. There were also significant quadratic and/or other higher order effects for some skills, meaning that some skills had "jumps" in trainee confidence on certain days in addition to the overall upward trend. For example, confidence in "testifying in court" was fairly low from baseline to Day 4, and then increased substantially on Day 5, the day of the courtroom simulation. The results of the repeated measures ANOVA with the 152 respondents who completed the DEST at every time point were similar. The confidence of respondents on performing the 13 investigative skills showed a significant linear increase over the course of simulation training week and the effect sizes were medium to large.

Comparing DEST results across cohorts enables us to see if changes in trainees' confidence have been consistent across trainings. We examined DEST results by training cohort for 27 cohorts in FY2022. Though the sample size of each cohort is small, the results showed that most cohorts, on average, experienced meaningful increases in confidence during virtual simulation training.

Due to the pandemic, some trainees might have experienced a greater delay in receiving simulation training. Consequently, they may have received more on-the-job training (OJT) prior to receiving simulation training than other cohorts in previous years. Our analysis showed that those with longer OJT tended to be slightly more confident than those with shorter OJT.

Each day trainees were asked to rate the helpfulness of whatever feedback they received that day. About 95% or more reported that the feedback was helpful or very helpful. This was true for feedback on each contributor to the training (facilitators, actors, healthcare professionals, and courtroom professionals), and for each day that this was measured. Respondents were also asked to rate the effectiveness of their group debriefing and individual debriefing, on a scale from 1-extremely ineffective to 7-extremely effective. Eighty percent or more of respondents rated the effectiveness of debriefings at 5 or higher across all the components. Because the quality of feedback and debriefing might affect the amount of confidence trainees gained over the training, we conducted a multiple regression analysis to assess the relationship between trainees' ratings of the feedback and debriefing and their change in average confidence across the 13 skills. The analysis showed that trainees who valued the courtroom professionals' feedback they received and trainees who valued their individual debriefing had greater increases in confidence.

At every survey time point, we asked "What were the most meaningful concepts or skills you learned today?" On both Day 2 and Day 3, we asked another question: "What was the most helpful feedback that you learned from your individual debriefing? And why?" In this chapter, we analyzed those responses that provided positive or negative feedback; other responses were analyzed in Chapter 3.The majority of feedback was positive and only a small number of responses offering feedback were negative.

The DEST has been used continuously since 2018 to assess simulation training in the CPTA. This enables us to compare results on the DEST over the course of four fiscal years: 2019 to 2022. There were comparable increases in confidence from Day 1 to Day 5 for each fiscal year, and there was no significant difference in final confidence level across fiscal years. Results were similar for the Chicago and Springfield laboratories.

One limitation of the DEST is that it measures trainees' subjective sense of their abilities and is not an objective measure of their skills. So we cannot know for certain from the DEST whether trainees' skills are actually increasing over the course of simulation training. Another limitation is that changes in trainees' confidence is an imperfect measure of the impact of simulation training. Trainees may give themselves ratings indicating increasing confidence but believe that this was due to their own effort to learn the skills during the week, and not credit the trainers with help in increasing their confidence. Despite these limitations, the DEST provides important information on trainees' experience of the simulation training experience and data on their appraisal of their growth in skills that are important for practice.

**Chapter 3: Exploratory Application of a Metacompetence Framework to Simulation Training**

The purpose of this component of the program evaluation was to explore data collected using the Daily Experience of Simulation Training (DEST) tool to assess whether simulation training helped trainees develop metacompetence. The approach was based on Bogo and colleagues holistic model of competence, which they describe in the below quotation (pp. 260-261):[1]

> One dimension, meta-competence, refers to higher order, overarching qualities and abilities of a conceptual, interpersonal, and personal/professional nature. This includes students' cognitive, critical, and self-reflective capacities. The second dimension, procedural competence, refers to performance and the ability to use procedures in various stages of the helping process and includes the ability to form a collaborative relationship, to carry out an assessment, and to implement interventions with clients and systems.

The sample for this analysis consisted of 488 DEST respondents who participated in CPTA's simulation training from December 2018 through September 2021. The analysis used data from two open-ended questions on the DEST that trainees were asked to complete at the end of each training day: 1) What were the most meaningful concepts or skills you learned today? 2) What was the most helpful feedback that you learned from your individual debriefing? And why? Coding was based on dimensions of metacompetence found in qualitative research by Tufford and colleagues.[2] After several iterations of coding and code reviews, we identified three themes of metacompetence from the DEST data: 1) skills in action; 2) self-awareness; 3) managing emotional intensity.

*Skills in Action*. This domain involves the ability to interpret and apply policy, to translate theoretical knowledge to real-world situations, to take the abstract of didactic learning to the concrete context of practice in dynamic environments, and to engage informed decision-making in a wide range of situations. One aspect of this domain is trainees' ability to embody the role of investigator and to distinguish, in practice, their own role from the roles of others. Having gained classroom-based knowledge of DCFS policies and values, simulation provides a platform for actually experiencing the interactions. According to participants, simulation training brought to life and reinforced the key values of genuineness, empathy, and respect. Though these are key values and part of procedure, enacting them with others may still be complex. Respondents also described the experience of managing essential job-related knowledge and skills alongside their own cognitive and affective responses in the court setting.

*Self-Awareness.* The foundation of one's ability to engage in sensitive and effective interactions with diverse individuals is self-awareness. Several comments expressed the effect of simulation training on increasing self-awareness. This theme also includes recognition of bias and its impact on investigation, which is a critical metacompetency for child welfare workers. Recognizing bias can improve investigation and decision-making, and can contribute to

[1] Bogo, M., Katz, E., Regehr, C., Logie, C., Mylopoulos, M., & Tufford, L. (2013). Toward understanding meta-competence: An analysis of students' reflection on their simulated interviews. *Social Work Education*, *32*(2), 259-273.

[2] Tufford, L., Bogo, M., & Katz, E. (2017). Examining metacompetence in graduating BSW students. *Journal of Baccalaureate Social Work*, *22*(1), 93-110.

investigators' cultural humility. Some participant comments reported learning critical thinking and applying the problem-based learning model they learned in simulation training. A sub-theme was developing the ability to adapt responses and investigative process to the client's needs and strengths. This influenced the pacing of the interaction, choice of words, and interactional approach.

*Managing Emotional Intensity*. The ability to accurately assess and effectively respond to resistance, anger, fear, confusion, and other client emotions is critical for the child protection investigator. Experiencing the intensity of client responses while meeting the tasks of the job is not something easily taught in a passive classroom setting, cementing the value of simulation to prepare workers for what can be extraordinarily difficult, even dangerous situations. The simulation experience involves some client resistance and emotion, providing trainees the opportunity to practice managing such situations. Trainees acknowledged the experience of discomfort in the simulated investigation and reflected on the importance of learning how to manage it in the moment. The data also suggest the benefit of simulation for developing the self-efficacy of participants. Trainees also reflected on the emotions that accompany learning their job. Some participants mentioned giving themselves permission to learn at their own pace, and realizing that these skills develop over time.

A number of trainee comments credited simulation training with helping them develop procedural competence too. Many trainees credited simulation training with helping them learn the procedures for safety assessment. Comments also mentioned a range of other skills that were enhanced, including using the best wording and pace to communicate with families, and effectively gathering information from the individual who reported child maltreatment.

Decision-making in child welfare investigation is complex, and the competencies that prepare people for the role should reflect that complexity. The enacted behaviors in simulation support the development of both procedural competences and metacompetence. Examination of metacompetence as an outcome of simulation training may allow for a better understanding of how trainees synthesize knowledge and skills into an overarching ability to act ethically, according to policy, and in a way that is responsive to unique individuals and contexts.

**Chapter 4: FY2022 Post-Training Satisfaction Survey**

DCFS administers an online post-training satisfaction survey on the Certification Training experience to trainees. Survey respondents provide written responses to two open-ended questions about their appraisal of simulation training and rate the quality of simulation training on eight Likert-scaled questions. This chapter analyzes data on simulation training from the FY2022 post-training survey to assess trainees' experience of simulation training. We utilized a mixed-methods approach involving both qualitative and quantitative analysis.

*Qualitative Analysis of Post-Training Feedback*. Two open-ended questions asked about trainees' experience of simulation training: 1) "Comment on this experience" and 2) "Please add a few statements that summarize your experiences in the Simulation Labs to help us improve the scenarios." After reviewing the comments, we identified four a priori codes that represent broad categories of participant feedback on simulation training: 1) primarily positive experience/feedback; 2) negative perception of experience with expression of negative affect;

3) negative perception of experience without negative affect; 4) did not answer. Exactly half of respondents trained through the Springfield laboratory reported a primarily positive experience. Most of the others trained by the Springfield laboratory reported a negative experience, more without negative affect (19.0%) than with negative affect (17.2%). The majority of the respondents trained through the Chicago laboratory reported negative experiences, more with negative affect (32.3%) than without negative affect (24.6%). About one-third of participants in the Chicago (27.7%) provided feedback that was primarily positive. Nineteen respondents (15% of the sample) reported that the use of virtual methods diminished the value of the training or that they would have preferred to receive the training live rather than virtually.

*Quantitative Analysis of Post-Training Feedback*. Majorities of respondents ranging from 64.0% to 73.8% agreed or strongly agreed with six of the eight positive statements about simulation training. Somewhat smaller majorities agree or strongly agreed with "The scenario environment was realistic and I was able to incorporate my training into practice" (61.9%), and "I felt the training was conducted in an environment conducive to learning" (59.7%).

The four feedback groups differed dramatically on most of the eight items, with very large effect sizes. The mean of the Negative With Negative Affect Group was significantly lower than all the other groups on seven out of eight items (all except "Felt prepared for sim training"). The Negative Without Negative Affect Group was also significantly lower than the Positive Group on all these variables, except that there was no significant difference on "The simulation environment was a safe learning environment."

The FY2022 post-training survey data suggest that there was no typical reaction to simulation training in the CPTA. Many respondents had a positive experience and some of them enthusiastically endorsed the training. Some had a negative experience without expressing negative affect. Some had a negative experience and reported noticeable negative feelings about it, perceiving that they were disrespected or feeling appalled. These results need to be a beginning point for inquiry. Areas to explore include changes in recruiting and hiring child protection investigators, the nature of the classroom training and its coordination with simulation training, stress related to the nature of the support for each training laboratory, the quality of the simulation training, and the contribution of each member of the training team.

**Chapter 5: Historical Analysis of the Post-Training Satisfaction Survey**

This chapter analyzes trainees' satisfaction ratings over simulation training from FY2016 to FY2022. The analysis focuses on the same eight questions about simulation training discussed in the last chapter. Between February 2016 and January 2022, 1,060 trainees received simulation training. A total of 641 participants responded to the simulation training questions. The estimated response rate is 60%.

A one-way analysis of variance showed a linear trend that was statistically significant across all eight questions, confirming that trainees' satisfaction ratings on every aspect of the simulation training decreased through the years. Overall the results showed three periods of time that differed significantly: 1) FY2016-FY2017: the average satisfaction ratings were close to the highest positive rating (5.0 = strongly agree with the positive statements); 2) FY2018-FY2020:

the average satisfaction ratings dropped but were still above 4 (4.0 = agree with the positive statements); 3) FY2021-FY2022: the average satisfaction ratings fell below 4. Most of the effect sizes were medium to large.

The data analyzed in this chapter do not reveal why ratings have changed. The results of this chapter suggest the need for greater inquiry into changes in the simulation training program and the systems connected to it. Such inquiry could suggest methods for changing programs and systems to reverse the decline in trainee satisfaction.

**Chapter 6: Conclusion**

July 2021 to June 2022 has been a fiscal year of transition for the Child Protection Training Academy (CPTA). Northern Illinois University became a partner in FY2022. The Chicago and Springfield training laboratories began FY2022 providing simulation training virtually but returned to live simulation training in March 2022. At the end of fiscal year, the University of Illinois at Springfield (UIS), the creator of the CPTA model and the founding university for the simulation training partnership with DCFS, ended its involvement in the program.

This year's evaluation results indicate that simulation training offers considerable value to trainees overall that is worth maintaining and building on. At the same time, the negative and distressing experiences that some trainees have had and declining ratings on simulation training suggest a need for program improvement. The challenge is especially great given the substantial transition the program will undergo once UIS departs.

In last year's report we discussed several methods to deal with trainees who find simulation training challenging. They remain useful suggestions. Classroom trainers could attend simulation training to provide support to the trainees, who they have worked with for four weeks (classroom trainers attended in-person simulation training in the past but did not attend the virtual trainings). Items might be added to the DEST that are more attuned to trainees' emotional experience. End-of-the-day group briefings could include more time for trainees to offer feedback on their experience. A structured peer review process might be added to trainings. Trainers and supervisors could build in a regular mid-training review process. Program managers could access post-training survey data regularly throughout the fiscal year to promote a timely response to any trainings in which multiple trainees have challenging experiences. One manager told us they had done this, and it was helping to monitor training quality in the program.

As we reported in the study of meta-competence in Chapter 3, several trainees credited simulation training with helping them identify and deal with bias in their work. This offers an excellent foundation for building capacity related to cultural diversity. We recommend that the laboratories explore developing or modifying simulations to address more completely issues of diversity.

We recommend the following additional research to help inform program improvement:

- A "trainer of trainers" study to understand how facilitators are prepared to conduct simulation training.

- Collecting data on investigator characteristics that might relate to trainees' positive and negative experiences.
- Interviews with trainees regarding their experience of simulation training.
- A qualitative study of the implementation of the Northern Illinois University simulation training laboratory
- Resuming the development of an observational measure of trainee competence in simulation training

The program of simulation training for DCFS child protection workers has demonstrated its value over more than half a decade. Its contribution to worker preparedness is still valuable. Program evaluation has been essential to its development and is arguably even more important now that the program is in transition and needs to deal with challenges. Supportive and transparent partnerships among all the organizations contributing to the program, and attention to program improvement based on data could inaugurate a new era in which simulation training contributes more fully and broadly to the development of competency and preparedness among a wide range of DCFS workers.

## Chapter 1: Introduction

The Child Protection Training Academy (CPTA) is a program providing experiential learning through simulation training and related methods to professionals from the Illinois Department of Children and Family Services (DCFS). For several years, CPTA has been a partnership of DCFS, the University of Illinois at Springfield (UIS), and the University of Illinois at Urbana-Champaign (UIUC; the UIUC team oversees the Chicago simulation training laboratory). This year the partnership was expanded through a contract with Northern Illinois University (NIU), which will begin to offer simulation training in FY2023. Detailed information on the development of CPTA and its impact is available in previous program evaluation reports (see below for capsule summaries; links to evaluation reports are in the footnotes). This report provides program evaluation result for CPTA for Fiscal Year 2022.

### Highlights of Simulation Training in FY2022

As a result of the COVID-19 pandemic, the CPTA continued to offer simulation training virtually in both the Chicago and Springfield laboratories for most of FY2022. In the Knock on the Door and the Scene Investigation simulations (see Table 2.2 in Chapter 2), the mock family was physically present in the laboratory along with trainers, and the trainees participated remotely via Zoom. One of the trainers wore a head camera and served as a proxy for the trainee. The proxy trainer would approach the family just as the trainee would have in person, and the head camera would serve as the trainee's "eyes", enabling the trainee to observe the home and family. Indeed, the trainee could direct the proxy to aim the camera to obtain whatever view was needed. In this way, the trainee was able to observe safety hazards in the home and conduct a visual inspection of the "baby" (doll) to see if there were signs of physical abuse. Other simulations (Calling the Reporter, Interviewing the Parents, Medical, and Courtroom simulations) were conducted entirely over Zoom. Because of the Covid-19 pandemic, the CPTA continued the virtual training that it had begun in FY2021. It also spread simulation training across parts of two weeks rather than concentrating it in just one week. Also, the CPTA re-formatted investigator training to include two case scenarios rather than just one. This provided trainees a broader experience and gave them extra practice in family engagement. In May 2022, CPTA returned to live training. When it resumed live training, it returned to its old format of offering the training from Monday through Friday in a single week, but it kept the two case scenarios.

FY2022 has been a time of transition. NIU joined the CPTA during FY2022. It is preparing to launch simulation training in FY2023. Two NIU staff have been receiving Training of Trainers from the UIS simulation training team. Currently the plan is for NIU to provide simulation training for intact family service workers. These workers serve families whose children remain in the home while DCFS keeps the case open.

Also, DCFS and UIS did not renew their contract for FY2023. This is a momentous change. UIS originated the idea of simulation training for DCFS workers, founded the program together with DCFS, delivered all the simulation training during its early years, and provided leadership for the program for its entire six-year history.

**An Overview of Previous Program Evaluation Results**

The FY2017 evaluation[3] used qualitative methods (observation and interviews) to describe the development of the CPTA and develop a logic model for the program. It also analyzed data from a post-training satisfaction survey (N=154) of program graduates. Respondents were asked a series of questions about whether simulation training had been effective. On every item except "feeling prepared for simulation training," 76% to 84% of respondents strongly agreed with the positive statements about the program in the items. Across seven evaluative questions on simulation training, there were 1,052 positive ratings (99.3%) and only seven negative ratings (0.7%). Content analysis of open-ended survey items showed that trainees frequently volunteered positive comments on the value of simulation training. Survey respondents recommended extending simulation training to a wider range of topics, professionals, and locations.

The FY2018 evaluation[4] included a qualitative component that examined in greater depth the process of developing the training. Interviews and focus groups with 32 stakeholders explored how the abilities of the CPTA team drive simulation training. The simulation trainer had a blend of numerous skills that facilitated simulation training. The standardized patients combined abilities to stay in character and provide feedback and have an effective partnership with the simulation trainer. Legal professionals in the courtroom roles were motivated to help DCFS workers improve their skills and emphasized collecting the necessary information, communicating information clearly and accurately, and presenting in a professional manner.

In addition, the FY2018 evaluation surveyed 259 current DCFS investigators; about half of those had received simulation training (sim group) and half had not, because they were hired before simulation training was offered (non-sim group).[5] The sim group reported greater ease in acquiring the skills of evidence-based documentation and testifying in court. Sim-trained investigators also valued the contribution of different simulations preparing them for their job. The survey also found differences between sim-trained and non-sim trained investigators on their thoughts about leaving their job. Non-sim investigators had four times greater odds of reporting that they were actively looking for a position at another department of DCFS. Non-sim investigators also had more than three times greater odds of reporting that they would leave DCFS as soon as they found another job, once age and experience were statistically controlled. The simulation training "era" at DCFS could differ in many ways from the era before

[3] Cross, T. P., Tittle, G., & Chiu, Y. (2018). *Program Evaluation of Child Protection Training Academy for New DCFS Investigators: Initial Report*. Urbana, IL: Children and Family Research Center, University of Illinois at Urbana-Champaign. Chiu, Y. L. & Cross, T. P. (2020). How a training team delivers simulation training of child protection investigators. *Children and Youth Services Review, 118*(1), 9p. DOI:10.1016/j.childyouth.2020.105390. https://www.cfrc.illinois.edu/pubs/rp_20180131_ProgramEvaluationofChildProtectionTrainingAcademyforNewDCFSInvestigators:InitialReport.pdf

[4] Cross, T. P. & Chiu, Y. (2018). *FY2018 Program Evaluation of Child Protection Training Academy for New DCFS Investigators*. Urbana, IL: Children and Family Research Center, University of Illinois at Urbana-Champaign. https://www.cfrc.illinois.edu/pubs/rp_20181016_FY2018ProgramEvaluationoftheChildProtectionTrainingAcademyforNewDCFSInvestigators.pdf

[5] Cross, T. P., Chiu, Y. L., Havig, K., Lee, L., & Tran, S. P. (2021). Evaluation of a simulation training program for new child protection investigators: A survey of investigators in the field. *Children and Youth Services Review, 131*. DOI:10.1016/j.childyouth.2021.106295.

simulation training began, so there could be other explanations for differences between non-sim trained investigators (hired before February 2016) and sim-trained investigators (hired after February 2016).

The FY2019 evaluation[6] included multiple sub studies to examine the implementation and outcomes of simulation training. The CPTA made significant changes to their training model and implemented it on August 20, 2018, and the program evaluation team conducted a qualitative study of the new training model. The evaluation team also implemented a method called the Daily Experience of Simulation Training (DEST) to examine trainees' experience of change over the course of the simulation training week.[7] The analyses indicated that trainees' confidence level for 13 skills significantly increased over the course of simulation training week. Confidence levels were measured on a 7-point scale, with 7 representing maximum confidence. Confidence levels on the last day ranged from an average of 5.7 (work as a DCFS investigator, testify in court) to an average of 5.9 (engage families, assess safety, integrate compassion and investigative skill). Effect size statistics indicate that the increases were large for every confidence item. The program evaluation team also conducted an updated analysis of the post-training satisfaction data. DCFS provided the evaluation team with data from the post-training survey between February 2016 and April 2019. Although the ratings of simulation training were consistently positive across the past four years, the ratings of simulation training decreased somewhat from FY2016 to FY2019. On the other hand, the mean satisfaction score for simulation training was higher than the mean for classroom training by one-fifth of a point on the 5-point scale, a difference that was small but statistically significant.

Employee turnover has historically been a problem in child welfare and the quality of training may be one important way of addressing turnover. Using employment data from DCFS Division of Budget and Finance, the evaluation team examined whether DCFS investigators who had received simulation training tend to remain in their jobs longer than DCFS investigators who joined DCFS before simulation training was available and did not receive simulation training. Results using the statistical method of survival analysis indicated that investigators in the non-sim group were significantly more likely to leave their job than those in the sim group in their first two years. At Month 18, 37% of non-sim group had left their job compared to 20% of sim group. At Month 23, the turnover rates for the two groups almost converge. The odds of leaving their job for the non-sim group were 1.8 times greater than the odds of leaving for the sim group, after controlling for other variables. The reduction in turnover during investigators' first two years could reflect the impact of simulation training. The caveat, however, is that the simulation training "era" at DCFS could differ in many ways from the era before simulation training began, so there could be other explanations for differences between non-sim trained

[6] Chiu, Y. & Cross, T. P. (2019). *FY2019 Program Evaluation of Child Protection Training Academy for New DCFS Investigators*. Urbana, IL: Children and Family Research Center, University of Illinois at Urbana-Champaign. https://www.cfrc.illinois.edu/pubs/rp_20190903_FY2019ProgramEvaluationoftheChildProtectionTraining AcademyforNewDCFSInvestigators.pdf

[7] Chiu, Y. L., Cross, T. P., Wheeler, A. B. Evans, S. M. & Goulet, B. P. (2021). Development and Application of a Self-Report Measure for Measuring Change During Simulation Training in Child Protection, *Journal of Public Child Welfare*, DOI: 10.1080/15548732.2021.2016546

investigators (hired before February 2016) and sim-trained investigators (hired after February 2016).

Among the components of the FY2020 evaluation[8] was a qualitative assessment of the implementation of a second simulation laboratory for new investigators that opened in Chicago in April 2019. This component used data from observations of the Chicago laboratory, interviews with key stakeholders of the laboratory and document review. Our report described the history of the implementation in Chicago, and explored how the three key players—simulation facilitators, the actors, and courtroom professionals—have implemented simulation training to provide effective learning experiences to trainees. Our comparison suggested that that the Chicago laboratory is a modest re-invention of the Springfield laboratory, using Rogers'[9] terminology on diffusion of innovations. The experience with the Chicago laboratory suggests that expansion can be successful while still needing to deal with challenges to maintain the capacity and quality of the simulation training program.

As in previous years, the Daily Experience of Simulation Training (DEST) measure in FY2020 shows that the confidence that trainees report increased substantially from the beginning to the end of the simulation training week. The DEST analysis by cohort suggests that the increase in confidence measured by the DEST was very consistent across cohorts. The post-training survey showed considerable trainee satisfaction with simulation training and indicated that many trainees want more time in simulation training. However, the program needs to be aware of the trainees who have a negative experience, which was a small percentage in FY2020.

In FY2021, in addition to repeating the DEST and post-training satisfaction survey analyses, the evaluation team updated the turnover study and conducted a maltreatment re-report study.[10] The program evaluation provides data supporting the value of simulation training even when delivered virtually. Trainees' reports from the Daily Experience of Simulation Training (DEST) measure showed increases in confidence in child protection skills during the virtual simulation training weeks. On the post-training survey, a majority of respondents agreed or strongly agreed with the items indicating satisfaction with simulation training. Yet some results suggest that trainees did not respond as positively to the virtual simulation training as previous trainees responded to in-person simulation training. In the turnover study, despite using sophisticated statistical methods, the evaluation team was unable to estimate clearly the effect of simulation training on turnover. There was no way, statistically or otherwise, to disentangle the effect of introducing simulation training from the effects of other historical changes that coincided with simulation training. The results of the maltreatment re-report study showed that investigations by sim-trained investigators were slightly more likely to result in a re-report than investigators who lacked sim training but had equivalent experience, but the difference was small and cannot be separated from historical change in re-report rates. There was no difference between sim-trained and non-sim-trained investigators from the same historical period. In total, we do not

[8] Chiu, Y., Lee, L. & Cross, T.P. (2020). *FY2020 program evaluation of the Child Protection Training Academy for new DCFS investigators*. Urbana, IL: Children and Family Research Center, University of Illinois at Urbana-Champaign.
[9] Rogers, E. M. (2003). *Diffusion of innovations* (5th Ed.). New York: Free Press.
[10] Cross, T.P., Chiu, L., Wang, S., Lee, L., Tran, S., & Havig, K. (2021). *FY2021 program evaluation of the Child Protection Training Academy for new DCFS investigators*. Urbana, IL: Children and Family Research Center, University of Illinois at Urbana-Champaign.

have evidence to support the supposition in the CPTA simulation training logic model that simulation training reduces re-reporting.

**Program Evaluation Activities in FY2022**

In FY2022, the CFRC evaluation team again used multiple sub-studies to assess simulation training. Chapter 2 presents quantitative and qualitative results from FY2022 from the Daily Experience of Simulation Training (DEST) measure. The DEST is an ongoing component of the simulation training program for new investigators and CFRC periodically analyzes DEST data to track changes in trainees' confidence over the course of simulation training. Analyzing the DEST for different cohorts helps assess whether the effects of simulation training on trainees' confidence is being maintained and is consistent across cohorts. We also reported written feedback about the training that trainees provided on the DEST. Chapter 3 examines data from open-ended questions on the DEST about trainees' learning from simulations. The chapter explores the effects of simulation training on participants' *metacompetence,* which involves trainees' "cognitive, critical, and self-reflective capacities"(p. 260)[11] that support them in applying their child protection skills in the field. Chapter 4 offers FY2022 results from feedback on simulation training on the post-training satisfaction survey that all new investigators are invited to complete following their Certification Training. Chapter 5 presents a historical analysis of feedback on simulation training from the post-training satisfaction survey, which the evaluation team has been analyzing for the past six years. Chapter 6r discusses the implications of the program evaluation results for understanding the current state of simulation training by CPTA, and presents recommendations for next steps. The program evaluation team also worked on the development of two additional sub-studies that were not scheduled for completion this fiscal year. One sub-study aimed to develop a standardized instrument capable of evaluating trainees' competencies during the simulation training week. The other was a "trainer of trainers" study to assess the onboarding process for new simulation facilitators.

[11] Bogo, M., Katz, E., Regehr, C., Logie, C., Mylopoulos, M., & Tufford, L. (2013). Toward understanding meta-competence: An analysis of students' reflection on their simulated interviews. *Social Work Education*, *32*(2), 259-273.

## Chapter 2: The Daily Experience of Simulation Training (DEST) Measure

If it is effective, simulation training should enhance investigators' preparedness for and confidence in their work. This should increase the quality of their work with families. The program evaluation team implemented the Daily Experience of Simulation Training (DEST) measure in 2018 to measure trainees' change in confidence in their skills over the course of a simulation training week.[12] We continued to implement the DEST even when simulation training became virtual during the pandemic-affected fiscal years of 2021 and 2022. During this week of simulation training, trainees use the DEST to rate their confidence daily on 13 child protection work skills. This chapter analyzes results from the DEST to gauge trainees' changes in confidence during simulation training. The most plausible explanation for changes in trainees' confidence is the impact of simulation training, though we are limited in being able to infer a causal effect because we lack a comparison group.

During FY2022, the simulation training continued to be virtual. The training continued to be offered during parts of two weeks, starting with Day 1 on Thursdays and ending with Day 5 on Wednesdays. Again, two case scenarios were used, one for Day 1 and Day 2 and the other for Day 3 to Day 5. Below we present results for FY2022 and compare them to results from previous fiscal years.

### Methods

The DEST includes 13 items measuring trainees' level of confidence on different child protection skills. Trainees rate their confidence on each specific skill from 1 (low) to 7 (high). We analyze each item individually and also analyze an overall confidence score operationalized as the mean of the 13 items. Trainees complete a baseline DEST in the morning of Day 1 and a DEST at the end of each day, Day 1 through Day 5. The Cronbach's alpha reliability coefficients for the overall confidence score in the current sample were between 0.97 and 0.99 across the six time points, which indicates excellent internal consistency among the 13 items in the scale. The baseline DEST includes additional questions about trainees' on-the-job-training experience. The DESTs also ask trainees to rate the helpfulness of feedback and the effectiveness of the debriefing from the training team on specific days. Two open-ended questions ask trainees to share what they learned that day.

Every day trainees were given a little time to complete the DEST, although the DEST was voluntary and trainees were free to decline to participate or terminate participation at any time. Trainers did not know which trainees participated and which did not. The data were collected through a secure website that automatically saved the data on a secure server managed by the Children and Family Research Center.

[12] Chiu, Y. L., Cross, T. P., Wheeler, A. B. Evans, S. M. & Goulet, B. P. (2021). Development and Application of a Self-Report Measure for Measuring Change During Simulation Training in Child Protection, *Journal of Public Child Welfare*, DOI: 10.1080/15548732.2021.2016546

**Response Rates**

The response rate for the DEST at each time point was calculated by dividing the number of responses (numerator) by the total number of trainees in simulation training (denominator). Between April 29, 2021 and March 23, 2022, a total of 184 trainees participated in the simulation training, and 182 trainees (99%) completed the DEST at one time point or more. The DEST data included 1043 responses over six time points. The daily response rate for the six time points ranged from 92% to 98% across the Chicago and Springfield sites (Table 2.1). Compared to the average response rate of online surveys (34.2%),[13] the weighted average daily response rate of 94% is very high.[14] Out of 182 respondents, 154 (84.6%) completed the DEST at all six time points.[15] Since a large percentage of trainees completed the DEST, it is reasonable to conclude that results from the DEST measure are representative of all trainees, and the measure is being used successfully with investigators receiving simulation training.

**Table 2.1**

*DEST Response Rate for Each Time Point*

| | **All (Trainees=184)** | | **Springfield (Trainees=86)** | | **Chicago (Trainees=98)** | |
|---|---|---|---|---|---|---|
| **Time Point** | Responses | % | Responses | % | Responses | % |
| Baseline | 171 | 93% | 79 | 92% | 92 | 94% |
| Day 1 | 178 | 97% | 82 | 95% | 96 | 98% |
| Day 2 | 177 | 96% | 81 | 94% | 96 | 98% |
| Day 3 | 173 | 94% | 80 | 93% | 93 | 95% |
| Day 4 | 171 | 93% | 80 | 93% | 91 | 93% |
| Day 5 | 173 | 94% | 80 | 93% | 93 | 95% |

**Analysis**

One-way analysis of variance (ANOVA) was used to compare average confidence scores over time for all 184 respondents, whether or not they had responded at all six time points. Repeated measures ANOVA was used to measure change among those 152 respondents who completed the DEST at each time point. Repeated measures ANOVA is a powerful method for examining change over time of the training week because error variance due to trainee differences is eliminated in the calculation of the F statistic, but it can only be used with trainees who completed the DEST at each time point. Because we anticipated a trend over time toward greater confidence day by day, the specific ANOVA method of trend analysis was used to assess whether the pattern of means across time followed a trend. Both linear and curvilinear trends were assessed for both the one-way ANOVAs and repeated measures ANOVAs.

[13] Poynton, T. A., DeFouw, E. R., & Morizio, L. J. (2019). A systematic review of online response rates in four counseling journals. *Journal of Counseling & Development, 97*(1), 33–42. https://doi.org/10.1002/jcad.12233

[14] The weighted average daily response rate in the last annual report was 89%.

[15] In the last annual report, 61% of trainees completed the DEST at all six time points.

We conducted additional analyses to explore further meaningful patterns of DEST results. We examined DEST results across cohorts who received simulation training in FY2022, to assess whether changes in confidence were consistent across cohorts. We examined the relationship between trainees' on-the-job training and their confidence level at each time point, using the Kendall tau measure of association. We calculated standard descriptive statistics to examine trainees' appraisal of the feedback and debriefing they received in the training and compared Day 2 and Day 3 on ratings of debriefing using Student's independent sample t-tests.

Moreover, because the quality of feedback and debriefing might affect the amount of confidence the trainees gained over the training, we conducted a multiple regression analysis to assess the relationship between trainees' ratings of the feedback and debriefing and their change in average confidence across the 13 skills. Instead of using change scores, which can yield misleading results, we regressed the average Day 5 confidence score (Y variable) on both the feedback and debriefing scores while controlling for average baseline score, which were used as covariates. This produces the most valid assessment of a variable's relationship to change[16]. The regression model included all the feedback variables and debriefing variables. Finally, we used standard descriptive statistical methods to conduct a historical comparison of DEST results from Fiscal Year 2019 to Fiscal Year 2022. We also identified positive and negative feedback in the written responses to the open-ended items on the DEST.

## Results

To provide a context for interpreting results in this section, we provided a summary table of the key simulated activities of the training week (Table 2.2). Feedback from the training team, including simulation facilitators, actors/family members, medical and courtroom professionals are given immediately after the associated simulated activities. Individual debriefings are specifically provided after the "Knock on the Door" and after "Scene Investigation" simulations. Simulation facilitators conduct a group debriefing at the end of each day except Day 5. Problem Based Learning (PBL), a method to cultivate and reinforce trainees' critical thinking ability, is taught and used throughout the training week.

### Changes in Confidence Level Over the Course of the Training

Figure 2.1 shows the changes for the entire sample of FY2022 over six time points for the 13 items of the confidence scale. All 13 confidence items showed a substantial linear increase over the course of simulation week. The average trainee's confidence level increased steadily from baseline to the last day across all 13 items. Confidence levels at baseline (Day 1 morning) ranged from an average of 4.2 (testify in court) to an average of 5.0 (engage families). Confidence levels on Day 5 ranged between an average of 5.7 (testify in court) to an average of 6.0 (engage families, assess safety, and explain DCFS role and expectations for keeping children safe). As Table 2.3 shows, one-way ANOVAs testing a linear trend were statistically significant, indicating a significant linear increase in confidence over the course of the simulation-training week for all 13 skills.

[16] Cohen, J., Cohen, P., West, S.G. & Aiken, L.S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences*. Second edition. Mahwah, NJ; Lawrence Erlbaum Associates.

**Table 2.2**

*Simulation Training Week Schedule*

| Day | Simulation |
|---|---|
| Day 1 | ***Calling the Reporter***: Trainees, as a group, interview the individual who called the hotline to make the report. A training staff person plays the reporter. |
| Day 2 | ***Knock on the Door***: Each trainee takes turns initiating contact with the family (standardized patients) at the mock house. |
| Day 3 | ***Scene Investigation***: Groups of two trainees take turns conducting a scene investigation in the presence of the perpetrators (standardized patients) at the mock house. |
| Day 4 | ***Interviewing the Parents***: All trainees formulate specific questions for parents (standardized patients) together. Trainees, as a group, interview the mock father and the mock mother separately in the classroom.<br>***Medical simulation***: Trainees are divided into two groups representing each child. Each group report the family situation and each child's information and communicate with the doctor played by a medical professional. |
| Day 5 | ***Courtroom Simulation***: Groups of two trainees prepare parents for the hearing. In the mock courtroom, each trainee provides a portion of the testimony in response to questions from the [state agency] attorney, parents' attorney, and guardian ad litem. |

*Note.* PBL is taught and used from Day 1 through Day 4.

**Figure 2.1**

*Confidence Level by Time Point*

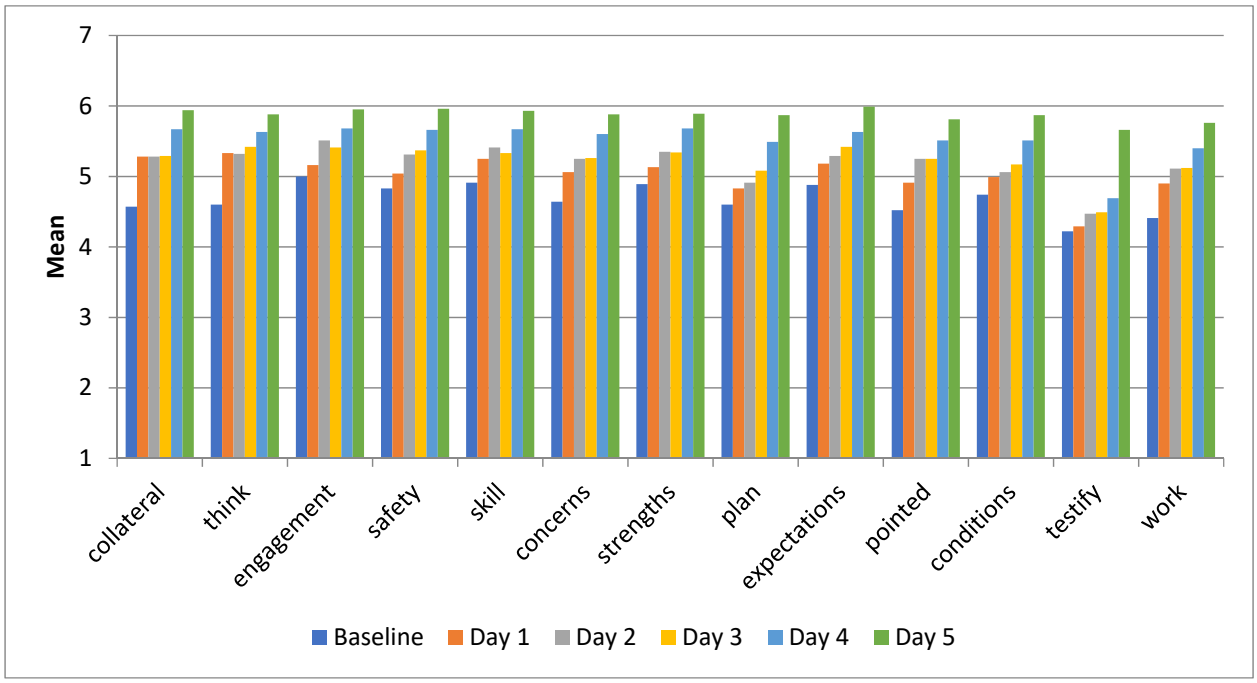


**Table 2.3**

*One-way ANOVA Tests for Trends on Confidence over the Course of the Week (N=1,040)*

| | ***Linear*** | **Quadratic** | |
|---|---|---|---|
| Confidence Scale | *F* (1,1034) | F(1,1034) | η2[17] |
| Gather info from collateral contacts | 25.12*** | .653[a] | .11 |
| Think critically on facts vs. hypotheses | 25.93*** | 3.97*[b] | .11 |
| Engage families | 14.67*** | .09 | .07 |
| Assess safety | 20.52*** | .44 | .09 |
| Integrate compassion and investigative skill | 15.00*** | .19 | .07 |
| Address any concerns about family statements and behaviors | 21.86*** | .08 | .10 |
| Identify family strengths | 14.82*** | .16 | .07 |
| Explain need for safety plan and/or protective custody | 21.88*** | 4.92* | .10 |
| Explain DCFS role and expectations for keeping children safe | 17.03*** | .71 | .08 |
| Answer pointed questions from parents and caregivers | 22.76*** | .73 | .10 |
| Testify in court | 64.90*** | 16.38***[c] | .08 |
| Work as a DCFS investigator | 98.76*** | .17 | .10 |
| Total Scale Mean | 113.76*** | .51 | .10 |

There were also significant quadratic and/or other higher order effects for some skills, meaning that some skills had "jumps" in trainee confidence on certain days in addition to the overall upward trend. Confidence in the skills of "gathering information from collateral contacts" and "thinking critically regarding facts versus hypotheses" increased substantially from baseline to the end of Day 1, when these skills are first introduced and practiced, and then again on Days 4 and 5 (Figure 2.2 and Figure 2.3). At the end of Day 4, to conclude the simulated investigation and prepare trainees for the court testimony the next day, simulation facilitators review the safety threat assessment in the PBL framework. This might contribute to the higher average rating on "thinking critically regarding facts versus hypotheses" on Day 4. Confidence in the skill of "explaining the need for a safety plan and/or protective custody" increased substantially on Day 4. The simulated interviews with alleged perpetrators on Day 4 focused on this specific skill (Figure 2.4). Confidence in "testifying in court" was fairly low from baseline to Day 4, and then increased substantially on Day 5, the day of the courtroom simulation (Figure 2.5).

Results for the effect size measures eta squared (η2) and Cohen's d for the linear effects are presented in Tables 2.2 and Table 2.3. According to Cohen's (1988)[18] guidelines, most of the effect sizes were in the medium to large range (i.e., η2 = .06 to .10, or d = .81 to 1.12). Cohen

[17]*Note*.. Cohen (1988) has provided benchmarks to define small (η2 = 0.01), medium (η2 = 0.06), and large (η2 = 0.14) effects. ***p <.001 [a] F Deviation (3,1034)=5.65, p <.001, indicating a statistically higher order effect above the quadratic effect. [b] F Deviation (3,1034)=5.60, p <.001. [c] F Deviation (3,1034)=2.80, p =.039,

[18] Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences*. New York, NY: Routledge Academic.

(1992, p. 156)[19] has described a medium effect as "an effect likely to be visible to the naked eye of a careful observer" and a large effect as noticeably larger than a medium effect.

**Figure 2.2**

*Confidence in "Gathering Information from Collateral Contacts"*

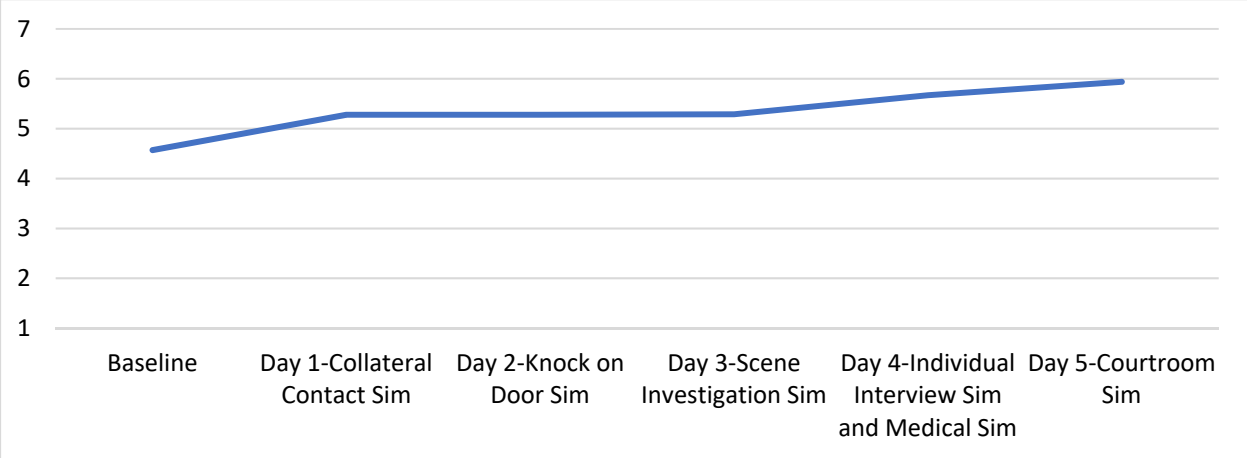
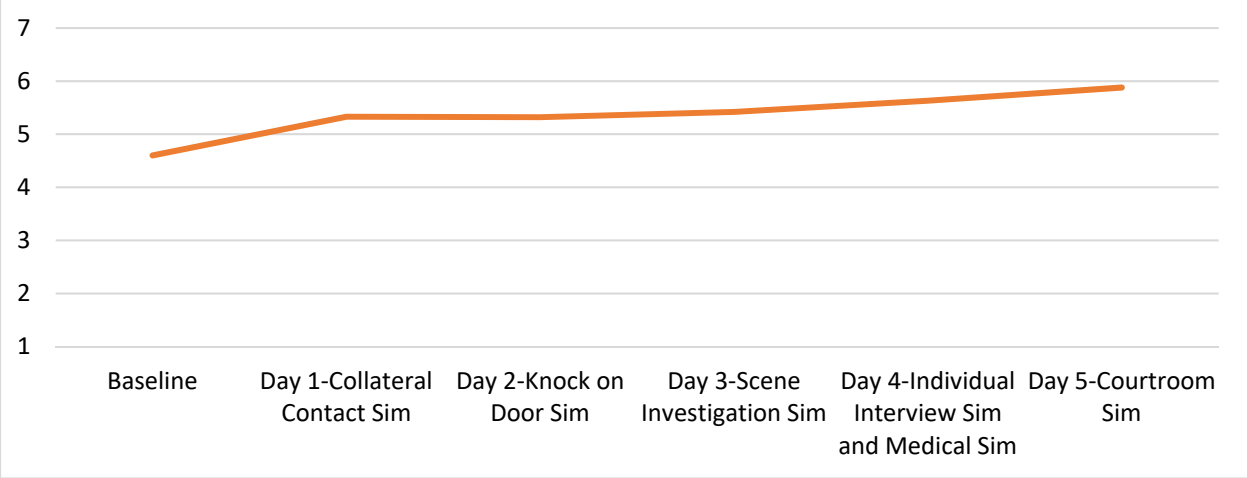



**Figure 2.3**

*Confidence in "Thinking Critically Regarding Facts versus Hypotheses"*




[19] Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112, 155-159.

**Figure 2.4**

*Confidence in "Explaining the Need for a Safety Plan and/or Protective Custody"*

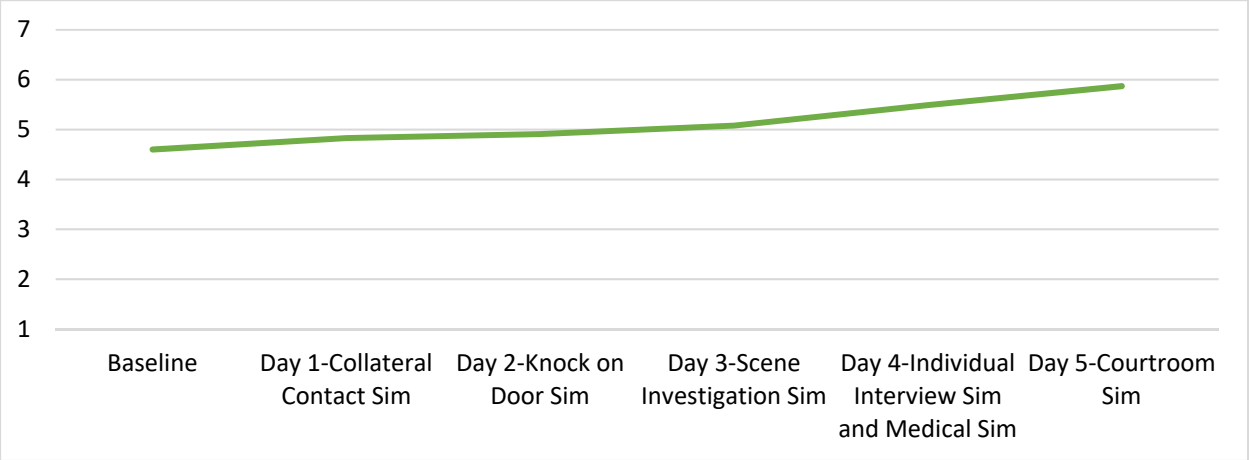



**Figure 2.5**

*Confidence in "*Testifying in Court*"*

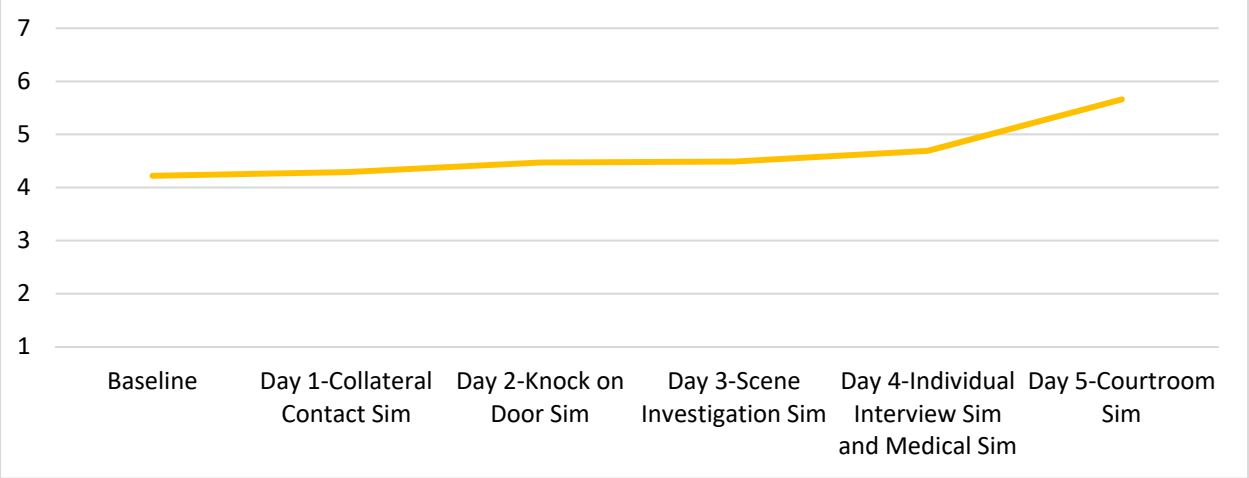


**Table 2.3**

*Statistics for Change between Baseline and Last Day of Simulation Training*

| Confidence Scale | Baseline | | Friday | | Cohen's d[20] |
|---|---|---|---|---|---|
| | Mean | SD | Mean | SD | |
| Gather info from collateral contacts | 4.6 | 1.4 | 5.9 | 1.0 | 1.12 |
| Think critically on facts vs. hypotheses | 4.6 | 1.3 | 5.9 | 1.0 | 1.09 |
| Engage families | 5.0 | 1.5 | 6.0 | 1.0 | 0.77 |
| Assess safety | 4.8 | 1.4 | 6.0 | 1.0 | 0.94 |
| Integrate compassion and investigative skill | 4.9 | 1.5 | 5.9 | 1.0 | 0.81 |
| Address any concerns about family statements and behaviors | 4.6 | 1.4 | 5.9 | 1.0 | 1.03 |
| Identify family strengths | 4.9 | 1.5 | 5.9 | 1.1 | 0.77 |
| Explain need for safety plan and/or protective custody | 4.6 | 1.5 | 5.9 | 1.0 | 0.99 |
| Explain DCFS role and expectations for keeping children safe | 4.9 | 1.4 | 6.0 | 1.0 | 0.90 |
| Answer pointed questions from parents and caregivers | 4.5 | 1.4 | 5.8 | 1.1 | 1.02 |
| Address underlying conditions | 4.7 | 1.5 | 5.9 | 1.0 | 0.89 |
| Testify in court | 4.2 | 1.7 | 5.7 | 1.1 | 0.99 |
| Work as a DCFS investigator | 4.4 | 1.6 | 5.8 | 1.1 | 1.01 |
| Total Scale Mean | 4.7 | 1.3 | 5.9 | 1.0 | 1.06 |

**Changes in Confidence Level with the Repeated Measure Sample**

A repeated measures ANOVA was conducted with the 152 respondents who completed the DEST at every time point during the FY2022. Differences across time points were statistically significant for all 13 items (Figure 2.6 and Table 2.4). Consistent with the findings in the previous section, the confidence of respondents on performing the 13 investigative skills showed a significant linear increase over the course of simulation training week and the effect sizes were in the medium to large range (i.e., $\eta 2 = .06$ to .11, or $d = .71$ to 1.08) (Table 2.4 and 2.5)(we do not report quadratic effects for this analysis). As Figure 2.6 illustrates, confidence increased for almost all skills across the simulation training week. The skill Testify in Court showed a somewhat different pattern. Average confidence for this skill stayed near baseline until Day 5, when it increased substantially—Day 5 was the day trainees did the courtroom simulation.

[20] The rule of thumb on magnitudes of Cohen's is that d = 0.2 are small; 0.5-Medium; and 0.8-Large (Cohen, 1988, 1992).

**Figure 2.6**

*Changes in Confidence Level over 6 Time Points of the Simulation Training Week*

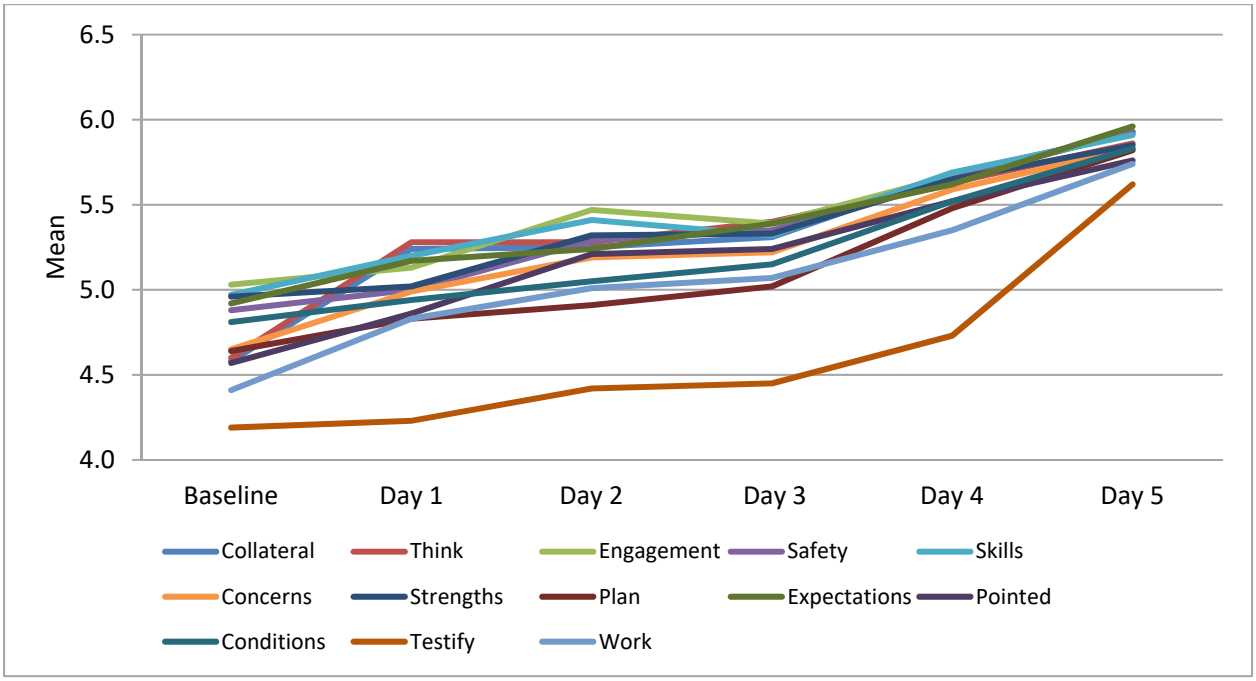



**Table 2.4**

*Repeated Measures Analysis of Variance Test of Linear Effects (all p < .001) (N=152)*

| Confidence Scale | *F* | η2 |
|---|---|---|
| Gather info from collateral contacts | 61.35 | 0.11 |
| Think critically on facts vs. hypotheses | 61.09 | 0.11 |
| Engage families | 33.35 | 0.06 |
| Assess safety | 46.12 | 0.09 |
| Integrate compassion and investigative skill | 37.59 | 0.07 |
| Address any concerns about family statements and behaviors | 56.09 | 0.09 |
| Identify family strengths | 41.40 | 0.06 |
| Explain need for safety plan and/or protective custody | 55.24 | 0.09 |
| Explain DCFS role and expectations for keeping children safe | 38.90 | 0.08 |
| Answer pointed questions from parents and caregivers | 52.17 | 0.09 |
| Address underlying conditions | 41.89 | 0.08 |
| Testify in court | 59.38 | 0.08 |
| Work as a DCFS investigator | 64.63 | 0.09 |
| Total Scale Mean | 87.62 | 0.10 |

**Table 2.5**

*Statistics for Changes between Baseline and Last Day of Simulation Training-Repeated Measures Analysis of Variance Sample (N=152)*

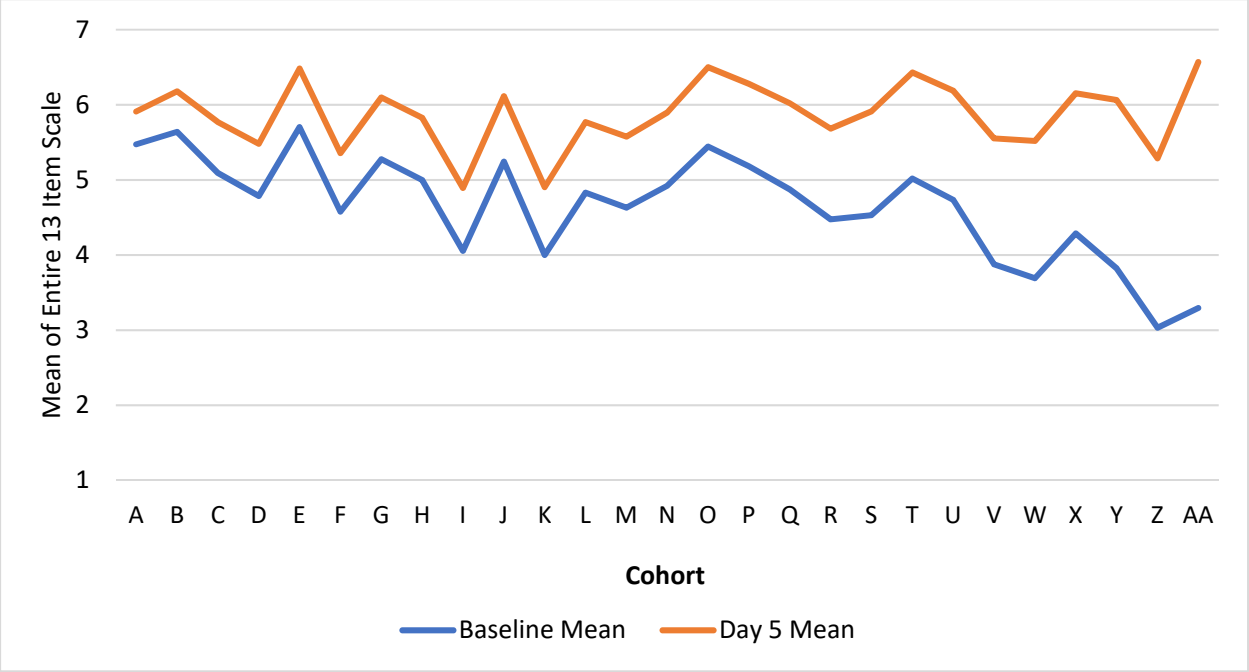
| Confidence Scale | Baseline | | Friday | | Cohen's |
|---|---|---|---|---|---|
| | Mean | SD | Mean | SD | d |
| Gather info from collateral contacts | 4.6 | 1.39 | 5.9 | 1.00 | 1.08 |
| Think critically on facts vs. hypotheses | 4.6 | 1.30 | 5.9 | 0.99 | 1.08 |
| Engage families | 5.0 | 1.40 | 5.9 | 0.97 | 0.74 |
| Assess safety | 4.9 | 1.33 | 5.9 | 0.98 | 0.91 |
| Integrate compassion and investigative skill | 5.0 | 1.36 | 5.9 | 1.04 | 0.79 |
| Address any concerns about family statements and behaviors | 4.7 | 1.29 | 5.8 | 1.03 | 1.02 |
| Identify family strengths | 5.0 | 1.40 | 5.9 | 1.08 | 0.71 |
| Explain need for safety plan and/or protective custody | 4.6 | 1.45 | 5.8 | 1.05 | 0.95 |
| Explain DCFS role and expectations for keeping children safe | 4.9 | 1.40 | 6.0 | 0.99 | 0.86 |
| Answer pointed questions from parents and caregivers | 4.6 | 1.41 | 5.8 | 1.07 | 0.96 |
| Address underlying conditions | 4.8 | 1.38 | 5.8 | 1.05 | 0.84 |
| Testify in court | 4.2 | 1.70 | 5.6 | 1.16 | 0.97 |
| Work as a DCFS investigator | 4.4 | 1.48 | 5.7 | 1.10 | 0.99 |
| Total Scale Mean | 4.7 | 1.21 | 5.8 | 0.96 | 1.03 |

**Examining DEST Results Across Cohorts**

Comparing DEST results across cohorts enables us to see if changes in trainees' confidence have been consistent across trainings. We examined DEST results by training cohort for 27 cohorts from April 2021 to March 2022. Springfield staff trained some cohorts and Chicago staff trained other cohorts. For some cohorts, Springfield and Chicago staff trained separate groups simultaneously. The data were pooled across trainings for these cohorts. The sample size of each cohort ranged from 4 to 14. Figure 2.7 depicts the results of the cohorts in order from smallest to greatest change. The blue line shows the mean confidence level (across the 13 skills) at baseline for each cohort and the orange line shows the mean confidence level for each cohort at week's end. Thus, the gap between the blue line and orange line represents the increase in confidence over the course of the week. We can see that there is a noticeable gap for most cohorts between the blue line and the orange line, indicating substantial change in most weeks. Though the sample size of each cohort is small, these results suggests that most cohorts, on average, experienced meaningful increases in confidence during virtual simulation training.

**Figure 2.7**

*Trainee Confidence Levels at the Beginning and End of the Simulation Training Week by Cohort in FY2022*




**On-the-Job-Training and Confidence Level**

Due to the pandemic, some trainees might have experienced a greater delay in receiving simulation training. Consequently, they may have received more on-the-job training (OJT) prior to receiving simulation training than other cohorts in previous years. This section presents results for the questions asking about on-the-job training and examines if the length of time receiving OJT was related to trainees' confidence level during the simulation training week.

Table 2.6 presents results for the 171 respondents who answered questions about their OJT (11 did not answer these questions). Almost 2/3 of investigators had two weeks or less of OJT. Only 5.3% of trainees had OJT for four weeks or more. Most respondents spent time in their OJT shadowing seasoned investigators, reading related documents, and/or learning about DCFS' Statewide Automated Child Welfare Information System (SACWIS).

Analysis with Kendall's tau statistic showed small but statistically significant relationships between OJT and confidence in the 13 skills. Those with longer OJT tended to be slightly more confident than those with shorter OJT. Table 2.7 shows Kendall's tau coefficients between OJT and each of the 13 child protection skills, presented separately by day.

**Table 2.6**

*Characteristics of On-the-Job-Training (N=171)*

| Time on OJT | n | % | Tasks done during OJT | n | % |
|---|---|---|---|---|---|
| None | 8 | 4.7% | Shadowed seasoned investigators | 144 | 84.2% |
| Less than 1 week | 40 | 23.4% | Read related documents | 104 | 60.8% |
| 1-2 weeks | 84 | 49.1% | Learned about SACWIS | 66 | 38.6% |
| 3-4 weeks | 30 | 17.5% | Worked on investigation reports | 36 | 21.1% |
| 5-6 weeks | 3 | 1.8% | Other | 14 | 8.2% |
| 7-8 weeks | 1 | 0.6% | | | |
| More than 8 weeks | 5 | 2.9% | | | |

**Table 2.7**

*Kendall's tau_b: Time on On-Job-Training and Confidence in 13 Skills (N=171)*

| | Correlation Coefficient with Time on OJT | | | | | |
|---|---|---|---|---|---|---|
| Confidence Scale | Baseline | Day1 | Day2 | Day3 | Day4 | Day5 |
| Gather info from collateral contacts | 0.22** | 0.30** | 0.22** | 0.22** | 0.17* | 0.18** |
| Think critically on facts vs. hypotheses | 0.14* | 0.19** | 0.20** | 0.18** | 0.19** | 0.19** |
| Engage families | 0.19** | 0.24** | 0.17* | 0.14* | 0.17* | 0.21** |
| Assess safety | 0.11 | 0.22** | 0.17* | 0.14* | 0.18** | 0.21** |
| Integrate compassion and investigative skill | 0.15* | 0.20** | 0.11 | 0.17* | 0.14* | 0.14* |
| Address any concerns about family statements and behaviors | 0.15* | 0.25** | 0.14* | 0.16* | 0.17** | 0.18** |
| Identify family strengths | 0.15* | 0.23** | 0.17** | 0.16* | 0.17* | 0.18** |
| Explain need for safety plan and/or protective custody | 0.17** | 0.24** | 0.17** | 0.20** | 0.15* | 0.19** |
| Explain DCFS role and expectations for keeping children safe | 0.15* | 0.21** | 0.22** | 0.16* | 0.15* | 0.17* |
| Answer pointed questions from parents and caregivers | 0.14* | 0.23** | 0.14* | 0.20** | 0.20** | 0.19** |
| Address underlying conditions | 0.15* | 0.23** | 0.16* | 0.15* | 0.20** | 0.19** |
| Testify in court | 0.14* | 0.12** | 0.14* | 0.13* | 0.17** | 0.16* |
| Work as a DCFS investigator | 0.23** | 0.21** | 0.21** | 0.23** | 0.23** | 0.22** |
| Total Scale Mean | 0.18** | 0.23** | 0.17** | 0.18** | 0.17** | 0.19** |

*$p$<.05; **$p$<.01

**Appraisal of Feedback and Debriefing**

Feedback from the training team during individual and group debriefings is important for facilitating trainees' learning. In the DEST, we asked participants to rate the helpfulness of the training team's feedback and the effectiveness of individual and group debriefings. Each day trainees were asked to rate the helpfulness of whatever feedback they received that day: the simulation facilitator from Day 1 to Day 4, actors/standardized patients on Day 2 and Day 3, medical professionals on Day 4, and courtroom professionals on Day 5. Note that the rating of classroom trainer's feedback was excluded because the classroom trainers did not always attend the simulation training with their trainees after the training format was changed to be virtual. Each time trainees answered the question about feedback, about 95% or more reported that the feedback was helpful or very helpful. This was true for each contributor to the training and for each day that this was measured (see Table 2.8).

**Table 2.8**

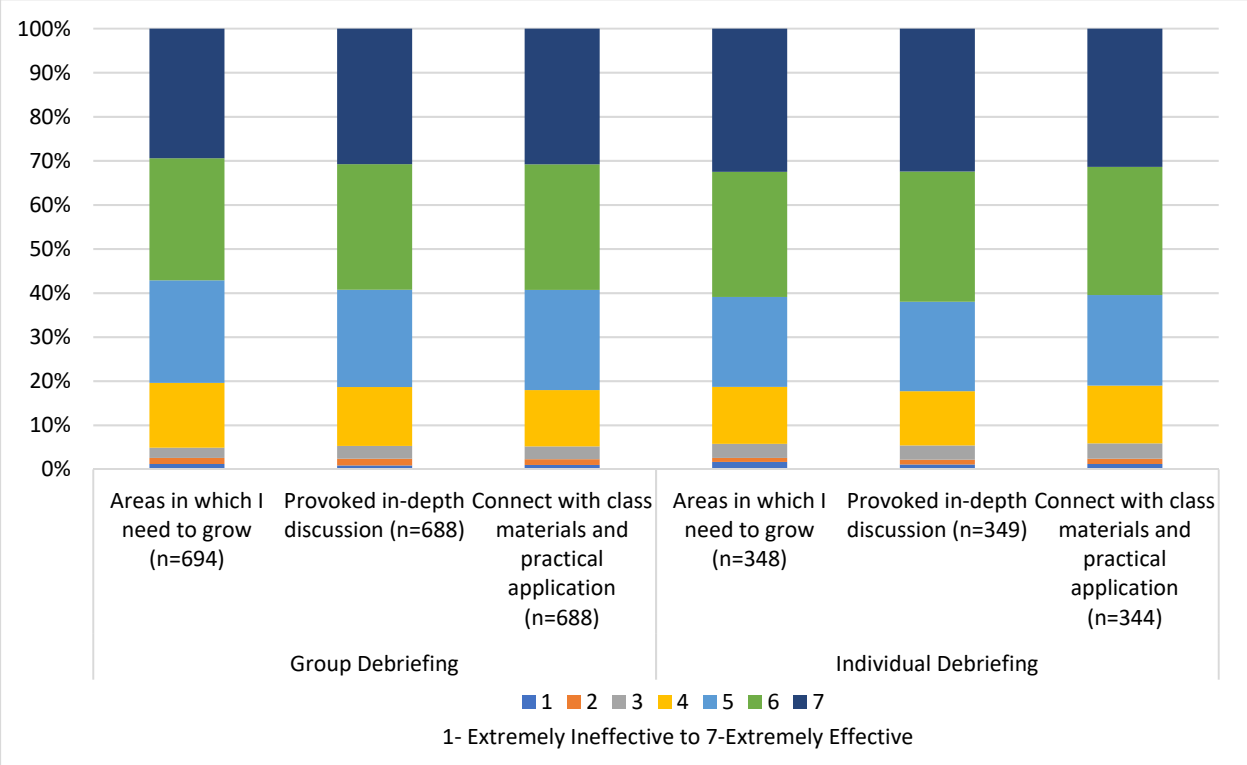
*Trainees' Ratings of Training Team's Feedback by Days*

| | **Day 1** | | **Day 2** | | **Day 3** | | **Day 4** | | **Day 5** | |
|---|---|---|---|---|---|---|---|---|---|---|
| | n | % | n | % | n | % | n | % | n | % |
| • **Simulation Facilitators** | | | | | | | | | | |
| Very unhelpful | 2 | 1.1% | 4 | 2.3% | 2 | 1.3% | 2 | 1.2% | - | - |
| Not helpful | 3 | 1.7% | 3 | 1.7% | 2 | 1.3% | 7 | 4.3% | - | - |
| Helpful | 55 | 31.3% | 33 | 18.9% | 60 | 38.5% | 53 | 32.9% | - | - |
| Very helpful | 116 | 65.9% | 135 | 77.1% | 92 | 59.0% | 99 | 61.5% | - | - |
| **Total** | **176** | **100%** | **175** | **100%** | **156** | **100%** | **161** | **100%** | - | - |
| • **Actors/Family members** | | | | | | | | | | |
| Very unhelpful | - | - | 4 | 2.3% | 2 | 1.7% | - | - | - | - |
| Not helpful | - | - | 2 | 1.2% | 3 | 2.5% | - | - | - | - |
| Helpful | - | - | 44 | 25.6% | 47 | 39.2% | - | - | - | - |
| Very helpful | - | - | 122 | 70.9% | 68 | 56.7% | - | - | - | - |
| **Total** | | | **172** | **100%** | **120** | **100%** | - | - | - | - |
| • **Medical Professionals** | | | | | | | | | | |
| Very unhelpful | - | - | - | - | - | - | 1 | 0.6% | - | - |
| Not helpful | - | - | - | - | - | - | 7 | 4.4% | - | - |
| Helpful | - | - | - | - | - | - | 48 | 30.0% | - | - |
| Very helpful | - | - | - | - | - | - | 104 | 65.0% | - | - |
| **Total** | - | - | - | - | - | - | **160** | **100%** | - | - |
| • **Courtroom Professionals** | | | | | | | | | | |
| Very unhelpful | - | - | - | - | - | - | - | - | 0 | 0% |
| Not helpful | - | - | - | - | - | - | - | - | 2 | 1.2% |
| Helpful | - | - | - | - | - | - | - | - | 30 | 17.8% |
| Very helpful | - | - | - | - | - | - | - | - | 137 | 81.1% |
| **Total** | - | - | - | - | - | - | - | - | **169** | **100%** |

Respondents were also asked to rate the effectiveness of their group debriefing every day between Day 1 and Day 4 and individual debriefing on Day 2 and Day 3 (individual debriefing was only provided on those two days). Three specific prompts were presented: 1) debriefing identified the areas in which I need to grow; 2) debriefing provoked in-depth discussion that led me to reflect on my skills; and 3) debriefing allowed me to connect with class materials and their practical application.[21] A seven-point rating scale was used, ranging from 1-Extremely ineffective to 7- Extremely effective. Figure 2.8 shows that 80% or more of respondents rated the effectiveness of debriefings at 5 or higher across all the components. This supports the conclusion that both group and individual debriefings helped facilitate learning. Further analyses by training day showed that there was no significant difference between effectiveness of group debriefing across the training days. Yet, a student's t-test analysis showed that the average ratings of individual debriefing on Day 2 were significantly higher than those on Day 3 (see Table 2.9).

**Figure 2.8**

*Appraisal of Debriefing Effectiveness*




[21] The Center for Medical Simulation (2009). *Debriefing Assessment for Simulation in Healthcare (DASH).* Authors: Boston, MA. https://www.unmc.edu/academy/community/simulation/wp-content/uploads/sites/5/2017/04/IMSH_2009_DASH.pdf

**Table 2.9**

*Student's t-tests Comparing Ratings on Effectiveness of Individual Debriefing by Training Day*

| Individual Debriefing | Day 2 | | | Day 3 | | | *t* |
|---|---|---|---|---|---|---|---|
| | N | Mean | SD | N | Mean | SD | |
| Debriefing identified the areas in which I need to grow | 177 | 5.8 | 1.3 | 171 | 5.4 | 1.4 | 2.80** |
| Debriefing provoked in-depth discussion that led me to reflect on my skills | 177 | 5.8 | 1.2 | 172 | 5.5 | 1.4 | 2.86** |
| Debriefing allowed me to connect with class materials and their practical application | 174 | 5.8 | 1.1 | 170 | 5.4 | 1.4 | 2.77** |

**$p<.01$

Because the quality of feedback and debriefing might affect the amount of confidence trainees gained over the training, we conducted a multiple regression analysis to assess the relationship between trainees' ratings of the feedback and debriefing and their change in average confidence across the 13 skills (see Table 2.10). While controlling for average baseline score, we included the following variables in the regression model: trainees' average ratings of simulation trainers' feedback across 4 days, average rating of actors/family members' feedback across 2 days, medical professionals' feedback, courtroom professionals' feedback as well as the average rating of the group debriefings and individual debriefings. This is an effective method of measuring which factors are related to improvement, while avoiding the limitations of using change scores.[22] The four feedback variables and the two debriefing variables explained 11.3% of the variance in average Day 5 confidence scores, over and above what was explained by average baseline confidence scores [F change (2,127) = 15.61, p<.001]. Only the courtroom professionals' feedback and the individual debriefing variable were related to average Day 5 scores. A one-point increase in rating of the quality of courtroom professionals' feedback was associated with a .70 higher confidence score, and a one-point increase in rating of the quality of debriefing was associated with a .37 higher confidence score, over and above what was predicted by the baseline score. The rating of the group debriefing was not related to change in confidence. These results indicate that trainees who valued the courtroom professionals' feedback they received and trainees who valued their individual debriefing had greater increases in confidence.

[22] Cohen, J., Cohen, P., West, S.G. & Aiken, L.S. (2003), *Applied multiple/correlation analysis of the behavioral sciences.* Third edition. Mahwah, NJ: Lawrence Erlbaum Associates.

**Table 2.10**

*Final Multiple Regression Model Predicting Day 5 Confidence Score (Mean) (N=135)*

| Variables | *B* | *SE* | *Beta(β)* | *p* |
|---|---|---|---|---|
| Baseline Confidence Score (Mean) | .214 | .056 | .260 | .001 |
| Helpfulness of Simulation Trainers' Feedback (Mean) | -.215 | .301 | -.096 | .475 |
| Helpfulness of Actors/Family Members' Feedback (Mean) | -.188 | .203 | -.097 | .357 |
| Helpfulness of Medical Professionals' Feedback | .005 | .124 | .003 | .970 |
| Helpfulness of Courtroom Professionals' Feedback | .701 | .172 | .297 | .001 |
| Effectiveness of Group Debriefings (Mean) | .069 | .152 | .074 | .651 |
| Effectiveness of Individual Debriefings (Mean) | .374 | .133 | .435 | .006 |

*Note*. Constant = 1.413, $F$ (7,127) = 21.212, $p$<.001, $R^2$ = .539.

**Open-Ended Questions about Trainees' Training Experience**

Two open-ended questions asked trainees to share what they learned that day. At every survey time point, we asked "What were the most meaningful concepts or skills you learned today?" On both Day 2 and Day 3, we asked another question: "What was the most helpful feedback that you learned from your individual debriefing? And why?" In this section, we provide an overview of the positive and negative feedback about their overall training experience from the FY2022 cohort, based on 707 responses to the first question and 224 responses to the second question. Chapter 3 presents a thorough qualitative analysis of all the data from these questions from 2018 to 2021, based on the theoretical framework of holistic competence.

Our analysis showed that the majority of responses provided positive feedback and only a small number of responses were negative. Usually the feedback was tied to each day's simulated activities.

***Day 1 - Calling the Reporter***

> *The worksheet that was provided by the trainers was very helpful in breaking down the incident into facts, assumptions, and next steps. It was a great exercise to utilize at the start of the investigation. I also feel more comfortable making the initial call to the reporter and knowing more of what to include in the phone call.*
>
> *I felt as if today was all a review of what we learned with [the classroom trainer]. The interview with the reporter seemed very unorganized.*

Several trainees specifically mentioned the usefulness of PBL:

> *Today I found it helpful to go over the PBL, problem based learning grid. This helped me to discern between facts, heresy and my own hunches. I was able to understand a little more of what my hypothesis' might be. And how to notate these, as well as gathering my next steps. This was very helpful.*
>
> *I liked working through the PBL's, especially as a group. It helped to explore all the possible options, as well as get feedback that there really is nothing too extreme when considering*

*hypotheses; there are endless possibilities and thinking about them as a group aided everyone to come up with creative, out-of-the-box options and ideas.*

***Day 2 - Knock on the Door***

*This was a great experience. I learned some new tactics and methods to make my engagement more successful.*

*I really enjoyed the simulation, as it provided a safe space to test our skills, as well as see our coworkers test their skills; it provided an opportunity to learn things from other people, as well as learn where we can improve. I think the most meaningful thing was engaging in more of a conversation, rather than just asking questions; it will ultimately lead the family to be more trusting of you.*

*The most helpful feedback I received was to learn that I have a calm demeanor which is helpful to engage families. I have been very nervous about this job and approaching families and this feedback has helped to make me more confident.*

*the feed back that everyone gave me helped me have a different approach on how to do interviews.*

*the constructive criticism was very helpful teaching me how to address a family when they are arguing.*

*It was productive for me to hear feedback about how I could have handled things differently in the simulation. Having a perspective from someone watching me was really helpful because I learned new things about my style that I would like to work on and change.*

*I think overall, I learned many different approaches to help engage the families in conversation. I learned how to slow down and consider aspects of the case while gathering information to ensure that I am getting more details.*

*I found everyone's simulations to be helpful and insightful. I picked up new skills and ways of wording and connecting things together that I could incorporate into my own style on engagement and rapport building.*

*I appreciate the feedback and thought it to be beneficial as I continue my career in investigations. My title (INVESTIGATOR) can make people very uneasy after hearing my feedback, so eliminating that from my vocabulary when talking to families can be helpful. Providing reassure when clients are resisting calms the situation as well. Knowing the information is vital, you don't want to be viewed as incompetent while trying to gain someone's trust.*

*All feedback and discussions are very important, and simply show us how to through any difficulties and/or mistakes while we are learning.*

Several respondents recorded "N/A" in their responses. Two respondents reported negative experiences:

*the "family" feedback. The moderators stumbled on their explanations of what I was able to accomplish and not. They do not appear prepared or educated in CPI nothing! The moderators do not appear competent in teaching this course.*

*that apparently my work space in my home environment is not adequate according to the family.*

***Day 3 - Scene Investigation***

A number of respondents indicated that Day 3 training was helpful:

*Everything was most helpful*

*All of it was beneficial. Sims is great!*

*It was helpful to go through the virtual walk through and discuss significant safety concerns.*

*Today's simulation was much more helpful because we were able to pause and the trainers gave feedback at that moment that was constructive to the progress of the simulation.*

*The most helpful feedback I got today was to look closely at the baby for any other marks and to be more assertive with the family to get an accurate look at the baby. This did help me speak up and be more assertive and clear with the family that I must see the baby on all sides without parents holding onto babies legs and sides.*

*I enjoy the feedback, both positive and negative.*

Again, several respondents recorded “N/A” or “not sure” in their responses. Some complained that they did not receive the feedback. There were two negative comments:

*not a fan of the breakout groups without facilitators.*

*I feel that we lost out having SMS training online as our camera went off 1/2 way thru SIMS and you could not view the actors and pretend baby well.*

***Day 4 - Interviewing the Parents***

Comments on Day 4 were positive:

*Most meaningful points from todays interviews were learning how to ask the underlying conditions and being able to ask the couple questions that would corroborate the timeline and incident that happened. I also found it helpful to interview the doctor and get clarity on the questions that we can ask, and getting medical expertise quickly.*

*It was helpful to have someone with us when we were interviewing mom and dad so that we were able to focus in on the information that we needed. I enjoyed interacting with the doctor and hearing feedback from the doctor so that we are able to better help serve our families.*

*It was beneficial to continue the interviews separately and take the opportunity to practice having those difficult conversations with parents.*

*I have a better understanding of what questions to ask perps vs other caregivers. I also feel more confident in speaking with victims of DV. Being able to remain trustful while intruding*

*on the lives of others (Although for the right reasons) can be difficult when speaking to people.*

***Day 4- Medical Simulation***

Trainees responded positively to the medical simulation:

*The feedback from the Doctor was very helpful. She provided useful information on how to approach conversations with ER doctors and what questions we should direct to them.*

*The conversation with the medical professionals were enlightening.*

*The sims with the doctor today were extremely unrealistic. From experience I know a discussion with a doctor would never be done in this manner. A doctor does not need nor do they generally want to go over scene photos in detail when discussing a child in their care.*

*I really appreciate hearing from the doctors....they gave a lot of positive reinforcement and focused on how to better utilize our strengths.*

***Day 5 - Courtroom Simulation***

The courtroom simulation received a great amount of praise:

*The judge's feedback specifically regarding how most judge's have been trained to received and analyze information was incredibly valuable to learn; this judge stated that you often times can "lose the judge" in longer narratives rather than just answering with simple responses.*

*The feedback from the attorneys after the court simulation was very helpful. It will be very useful knowing what the attorneys expect of the CPI when testifying.*

*The feed back that I received. Listening to my peers feed back as well. I was great to hear from real court professionals. I now know what to expect and my roll in the court room.*

*I found the Simulation Shelter Care hearing to be very helpful today because it allowed me the chance to hear the types of questions I would be asked in Court. Also allowed me to gage how to answer and how much to say when on the stand. I did find it helpful to hear the feedback from each court professional including the judge, States Attorney and Parent's Attorney. I learned to speak clearly and be matter of fat and to the point in answering questions or just ask for attorney to repeat a question.*

*I enjoyed being able to experience testifying, especially in a controlled environment. It is often difficult to walk into something without any experience, so even this little experience and feedback aided in making me more comfortable. I think it also helped to build confidence in knowing what you are doing and knowing the information you have.*

A few people did not feel prepared when going through the courtroom simulation:

*I simulation training for the court preparation did not prepare me for the court experience, I did not like it. I was not heard correctly regarding my concerns from the trainers, the last investigation should have been as a group no separate. simulation need more structure.*

*That if I was allowed to complete my own court report and testify to exactly what I was told and witnessed that I would have had less anxiety and frustration about completing court during simulation.*

***Feedback on the Overall Simulation Training Experience***

In addition to the specific feedback tied to each day's simulation, some comments addressed the overall simulation training experience. There were praise and suggestions for improvement. Several people found it difficult doing the training on Zoom. See the comments below.

*The real-life exercises is great but a little confusing at some points but they reminded us WE ARE LEARNING.*

*I also feel like sims training should be longer this is more hands on learning rather than just doing power points and reading we need to know more of what we will really be doing in the field. this part of training was more helpful than the powerpoint/reading portion as well.*

*my time spent in SIMS has been extremely important and enriching, but much too short. I have had 4 weeks on the job training and shadowing prior to starting Foundation training. I found the class education helpful, but being an experiential learner, it would have been more helpful in retaining the valuable information provided to me by be able to practice the skills in the SIMS sessions. Having 5 days allotted for SIMS training is not enough practical time to develop the needed skills for my job… I respectfully recommended a significant extension in the amount of time provided to new CPI in SIMS training. Some suggestions may be: 1/2 day classroom, 1/2 day SIMS training for the duration of Foundation training 1 week classroom, Next week SIMS for the duration of Foundation training Extended SIMS training for a total of 3 weeks Thank you for you serious consideration to this concern!*

*I simulation training for the court preparation did not prepare me for the court experience, I did not like it. I was not heard correctly regarding my concerns from the trainers, the last investigation should have been as a group no separate. simulation need more structure*

*it is difficult to simulate situations remotely that you would experience in person. I think at times this creates difficulty in learning.*

*That I dislike doing this over zoom.*

There were also comments specifically providing feedback on the training team:

*The facilitators in today's training were extremely helpful in applying what we have learned thus far.*

*It has been a great pleasure to know that the trainers come with a wealth of experience and knowledge and they are able to provide adequate information.*

*I did enjoy getting feedback from the actors in Simulations he let me know I was having an effective and engaging encounter.*

*I appreciate the feedback from the trainers, information from my training team, and the family members that were involved in the sim exercise on today.*

*Lack understanding of how to effectively training/teach adult learning, I felt the training was 40% effective, a few trainers lack good communication skills, especially with interrupting…Trainers' communication style is poor and confusing.*

Several specific negative comments came from one training cohort during their Day 4 training:

*Two of the staff are very rude, talking down on someone, have no respect, makes someone look so foolish and bring their spirit down in so many ways when it comes to asking a question or have a clarification of whatever topic that is been discussed.*

*There was an issue with another trainee and our trainers... I have also felt that the trainers have been rude to us during our time in class. After the other trainee spoke up, I feel as if they changed their tone and began being nicer to us. There have been multiple trainees that have felt they have been rude to them.*

*The trainers have been rude throughout the training experience. Today they were called out on their interaction with one particular individual. The trainer became very defensive and addressed the whole room/group that if we felt the same they encouraged us to let you all know. She said that is why they record us. I would note that they don't usually start recording until they have already spoken to us for a long while. Their attitudes changed after the interaction with this one individual.*

**Historical Comparison of DEST Results Over Time**

The DEST has been used continuously since 2018 to assess simulation training in the CPTA. This enables us to compare results on the DEST over the course of four fiscal years: 2019 to 2022. As Figure 2.9 shows, the results are similar for each fiscal year. There were comparable increases in confidence from Day 1 to Day 5 for each fiscal year, and there was no significant difference in final confidence level across fiscal years. Note that there is little difference in the confidence scores for in-person and virtual training. As Figure 2.10 shows, results were similar for the Chicago and Springfield laboratories.

**Figure 2.9**

*Confidence Level by Time Point by Fiscal Year*

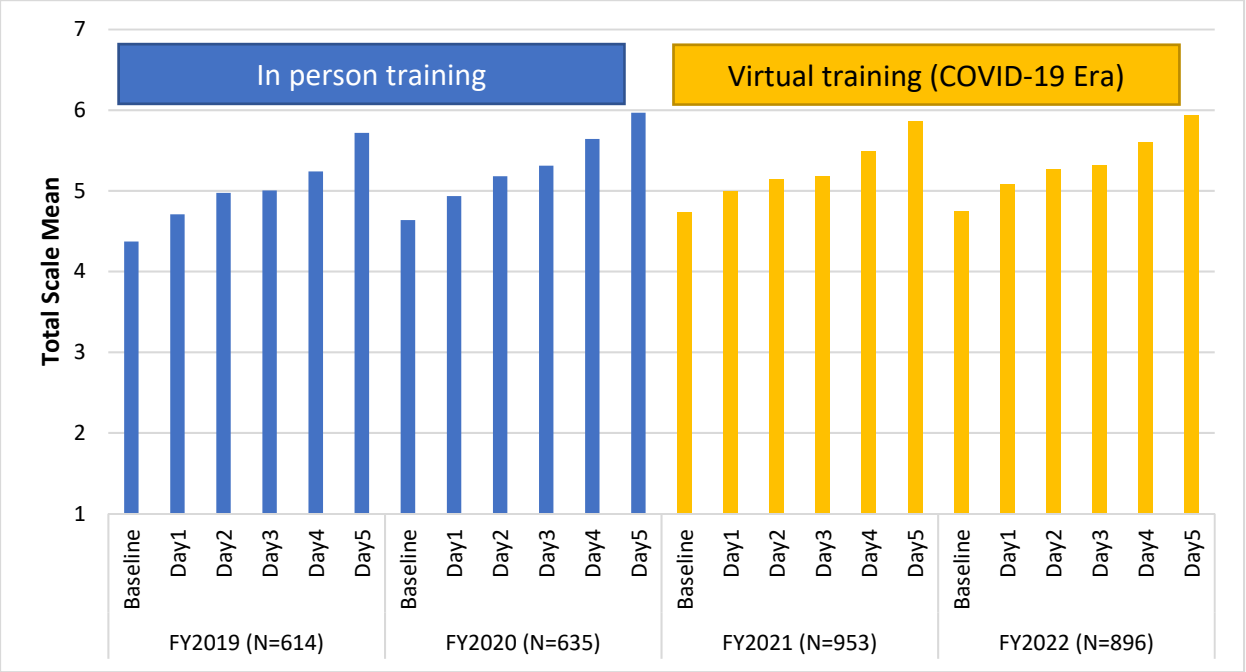
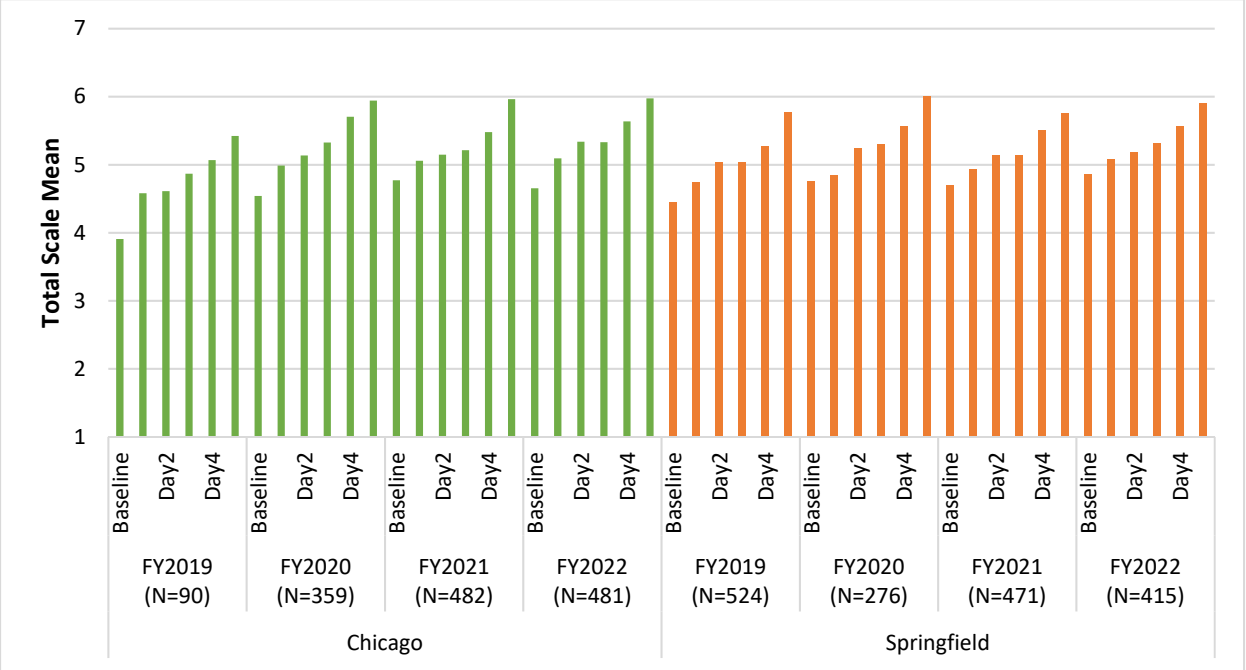



**Figure 2.10**

*Confidence Level by Time Point by Fiscal Year and by Site*



## Discussion

The Daily Experience of Simulation Training (DEST) provides valuable real-time data on trainees' changes in confidence during simulation training. It is the only evaluation method to date that measures change over the course of the simulation training week. Almost all the simulation training participants completed the DEST at least once during their training week. The high response rates enhance the validity of the results. FY2022 was the second fiscal year of the Covid-19 pandemic. The DEST in FY2022 continued to show the linear increases in confidence for almost all the 13 skills with the effect sizes in the medium to large range. DEST increases in confidence paralleled those from the pre-COVID-19 era, suggesting that trainees were able to increase in their confidence in their skills despite the training being conducted virtually (Figure 2.2).

The cohort analysis showed that increases in confidence were consistent across 27 cohorts in FY2022, including both cohorts with Springfield trainees and Chicago trainees. Because sample sizes for this analysis were small and the reliability of individual results is limited, we think it is inadvisable to examine individual cohorts with smaller changes in the DEST. A better use of the cohort results is to conclude that increases in confidence during the simulation training week are typical but not guaranteed, so quality control remains important.

The results concerning trainees' OJT and confidence level showed that those with longer OJT tended to be slightly more confident than those with shorter OJT. In terms of the appraisal of the training team, each member of the simulation team included in the analysis continued to receive positive feedback from large majorities of trainees this year despite the fact that training continues to be conducted virtually. The results concerning the effectiveness of debriefing with the training team also showed positive results. Trainees rated the overall effectiveness of debriefing on average between 5.6 and 5.8 (on the scale of 1 to 7), suggesting that both group and individual debriefings helped facilitate learning during FY2022. Those who rated their individual debriefing as more effective tended to have greater increases in confidence.

Positive comments predominated in the written comments that trainees provided on the open-ended questions. Several trainees had suggestions for improvement that deserve attention, and there was some frustration with doing the simulations virtually rather than live. A few trainees reported very negative experiences in which they reported disrespectful behavior. Although this should not detract from trainees' positive feedback, it needs to be taken seriously as evidence that some trainees are at risk for difficult experiences with simulation training. Simulation trainers may be more likely to encounter this than other trainers because simulations require more engagement, vulnerability and interaction with trainers than other training methods.

One limitation of the DEST is that it measures trainees' subjective sense of their abilities and is not an objective measure of their skills. So we cannot know for certain from the DEST whether trainees' skills are actually increasing over the course of simulation training. Nevertheless, developing confidence through training is certainly a prerequisite to doing one's job well, and people's appraisal of their skills is likely to be correlated with their actual skills, even though the

correlation may be modest. Moreover, training is unlikely to be effective if trainees do not believe that their skills are increasing.

Another limitation is that changes in trainees' confidence is an imperfect measure of the impact of simulation training. Our thinking was that the most plausible explanation for changes in confidence during the training is the effect of what the trainers provided. But an alternative explanation is possible. Trainees may give themselves ratings indicating increasing confidence but believe that this was due to their own effort to learn the skills during the week, and not credit the trainers with help in increasing their confidence. The high ratings on both feedback and debriefing suggest that trainees do credit the training team with helping them, and a regression analysis suggests that more value placed on the courtroom professionals' feedback and individual debriefing predicts greater increase in confidence. These results suggest that simulation training is likely to improve trainees' confidence. But other data from the simulation training that we discuss in Chapters 4 and 5 are not as positive as the data in this chapter, and we are seeking to understand explanation for differences in the evaluation results. We discuss this more in the final chapter.

Despite these limitations, the DEST provides important information on trainees' experience of the simulation training experience and data on their appraisal of growth in skills that are important for practice. It has provided consistent data on every cohort of simulation training for several years, suggesting the impact of the training experience and offering data that assist in quality control. These data consistently indicate that trainees experience increases in skills over the course of simulation training and support the value of the training.

## Chapter 3: Exploratory Application of a Metacompetence Framework to Simulation Training

Competency-based learning through simulation is an established model for skill-building among child welfare workers.[23] Competencies such as the ability to ask open-ended questions, to understand nonverbal cues, or to demonstrate empathy are critical for child protection investigators. Writing about competency assessment in social work education, Bogo and colleagues[24] proposed a holistic model of competence that encompasses both procedural competence and metacompetence (pp. 260-261):

> We developed a theoretical perspective about holistic competence that consisted of two inter-related dimensions. One dimension, meta-competence, refers to higher order, overarching qualities and abilities of a conceptual, interpersonal, and personal/professional nature. This includes students' cognitive, critical, and self-reflective capacities. The second dimension, procedural competence, refers to performance and the ability to use procedures in various stages of the helping process and includes the ability to form a collaborative relationship, to carry out an assessment, and to implement interventions with clients and systems. Analysis using a metacompetence framework acknowledged the importance of internal processes such as management of one's own affective responses, engaging in self-focused reflection, and implementing cultural self-awareness and competence.

The purpose of this component of the program evaluation was to explore data collected using the DEST tool to assess whether simulation training helped trainees develop metacompetence. In addition to its rating scales, the DEST includes open-ended questions about trainees' learning and the outcome of their debriefing with trainers. Specific aims of this analysis included:

- To measure the effect of the CPTA's simulation training on investigator metacompetence;
- To help develop methods of evaluating competencies affected by simulation training in child welfare;
- To begin to operationalize domains of metacompetence[25] based on data collected from child welfare simulation trainees on their learning.

To explore the DEST data for evidence of metacompetence, we drew from Tufford and colleagues' study of the development of metacompetencies among fourth year Bachelor of Social Work students. As part of their coursework, students participated in an Objective Structured Clinical Examination (OSCE). They conducted a mock interview for 15 minutes with an actor trained to play a role in a standard social work scenario. Using a computer, the students then answered in writing a series of reflective questions that queried them about their performance in the mock interview. Among the questions were queries about what they

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[23] See, e.g., Bogo, M., Shlonsky, A., Lee, B., & Serbinski, S. (2014). Acting like it matters: A scoping review of simulation in child welfare training. *Journal of Public Child Welfare*, *8*(1), 70–93.

[24] Bogo, M., Katz, E., Regehr, C., Logie, C., Mylopoulos, M., & Tufford, L. (2013). Toward understanding meta-competence: An analysis of students' reflection on their simulated interviews. *Social Work Education*, *32*(2), 259-273.

[25] See Tufford, L., Bogo, M., & Katz, E. (2017). Examining metacompetence in graduating BSW students. *Journal of Baccalaureate Social Work*, *22*(1), 93-110.

learned in their social work program that influenced their approach in the interview, whether issues of diversity affect their approach in the interview, and how they used their feelings in the interview. The researcher coded students' answers and derived from the data four themes explaining students' development of meta-competencies:

1. Foundational Skills Versus Theoretical Knowledge
2. Deepening Perspectives of Diversity
3. Managing Client Intensity
4. Openness to Learning

We chose to apply Tufford and colleagues' themes to data from CPTA, because of its focus on metacompetence and because several of the dimensions matched our impressions of the type of metacompetencies trainees in the CPTA might be developing.

## Method

This was an exploratory qualitative analysis of brief responses to open-ended questions about the learning and debriefing impacts of the CPTA's simulation training for new child welfare investigators.

### Participants

The sample for this analysis consisted of all trainees who participated in CPTA's simulation training from December 2018 through September 2021 and contributed data on the Daily Experience of Simulation Training (DEST) measure. Over that period, there were 66 cohorts at two sites in the state with a total of 448 respondents. Within that time period, 56 trainings were provided; participants attended one week of simulation of the Certification Training.

### Data Collection

The analysis for this chapter used data from two open-ended questions on the DEST that trainees were asked to complete at the end of each training day: 1) What were the most meaningful concepts or skills you learned today? 2) What was the most helpful feedback that you learned from your individual debriefing? And why?[26]

### Data Analysis

Three members of the research team coded the entirety of the DEST data for all respondents, at the Springfield and Chicago sites, for each day of simulation training using a priori codes derived from the content and aims of the training (i.e., safety assessment or giving testimony). This allowed us to sort a large amount of data around a clear task or element of the training. From there, we grouped our original codes (28 in all) according to the four themes of metacompetence found by Tufford and colleagues.[27] We were then able to extract all of the data falling under each dimension of metacompetence for further refinement and to read for consistency within each group. This second phase of analysis involved one researcher coding for

[26] Chiu, Y., Cross, T.P., Wheeler, A.B., Evans, S.M. & Goulet, B.P. (2021). Development and application of a self-report measure for measuring change during simulation training in child protection. *Journal of Public Child Welfare*. doi: 10.1080/15548732.2021.2016546.
[27] Tufford, et al., 2017, ibid.

additional nuance within each dimension, establishing subthemes, and ensuring coded data were conceptually organized. Finally, we were then able to identify unique quotes from the DEST data that help to illustrate the elements of each area of metacompetence.

Further review by the entire research team suggested that some of Tufford's metacompetence themes applied to data from the CPTA, with some adaptation, while other domains did not apply to the data. We revised our understanding of the domains that we coded and derived the following categories that described the nature of the metacompetence promoted by CPTA training. We re-coded some comments to fit the new categories better.

**Skills in Action.** This refers to metacompetence in interpreting and applying policy and procedure and other information gained via a traditional classroom didactic model. It involves being able to use practice skills in dynamic and varied practice contexts and making informed decisions in varied practice situations.

**Self-Awareness.** This dimension of metacompetence refers to investigators' awareness of how their own perceptions influence their actions and how their behavior influences clients and colleagues. This dimension also pertains to investigators' recognizing and responding to the biases that they bring to the work. This is especially pertinent for the CPTA simulation training, which utilizes problem-based learning to help trainees develop and test hypotheses to overcome biases. This dimension also applies to learning to focus on family's strengths to counteract one's tendency to focus on the negative.

**Managing Emotional Intensity.** Encounters with clients in child welfare can be intense. They can evoke strong emotional reactions in investigators as well as clients. Simulations gave trainees an opportunity to develop greater metacompetence in dealing with both clients' and their own emotional intensity. More broadly, this domain concerns the effect of simulation training on trainees' awareness of and management of the emotions that accompany their work.

## Results

Below we describe findings according to the three domains articulated above. We also use the participants' words to illustrate ways in which key facets of metacompetence are evident in participant experiences of simulation training.

### Skills in Action

The first dimension relates to the application of practice knowledge to situations involving clients. The classroom training portion of preparation for new child welfare investigators provides substantial information about the people, policies, and programs of child welfare that workers must be able to interpret and apply in the field. This domain involves the ability to interpret and apply policy, to translate theoretical knowledge to real-world situations, to take the abstract of didactic learning to the concrete context of practice in dynamic environments, and to engage informed decision-making in a wide range of situations. Comments indicate that investigative work is often far more complex than can be adequately addressed in classroom-style learning. One trainee described it as "*trying to piece everything together so that it makes sense when in the field.*"

One aspect of this domain is trainees' ability to embody the role of investigator and to distinguish, in practice, their own role from the roles of others (supervisors, clients, reporters, physicians, and court personnel). Having gained classroom-based knowledge of DCFS policies and values, simulation provides a platform for actually experiencing these interactions. Below are quotes that illustrate this theme.

> *…the importance of making sure the family feels I am there to help but not to be overly friendly in that role*
>
> *I learned that you cannot be afraid to be direct with some of the harder questions you have to ask parents. I also learned that you can be firm and assertive when creating a safety plan because you have to make sure the kids are safe.*
>
> *I learned I need to work explaining the process of the investigation and why I am in the home right away and more effectively. I also learned I need to not rush and go with the flow more and not be so rigid with my checklist of things to ask about in a particular order. Also, to continue to be mindful about the dynamics of the relationships in the home and continue to show respect throughout the process.*

Trainees also talked about gaining a better understanding of the limitations of their own role, and the roles of others. One person realized that "*doctors know less about child abuse and neglect than we do."* Another stated:

> *Today was significant; I learned that its totally fine to not agree with the defense attorney. Remain my ground and continue to deliver the FACTS no matter what.*

Trainees emphasized their learning about applying interaction skills and building engagement with clients:

> *How to be more engaging to clients and not just jumping into the investigation when they are getting to know me, the fact that there's an investigation, what that means, etc.*
>
> *Personal skills and not to sound like I'm checking things off a checklist.*
>
> *How to engage families at the front door of an investigation. How to be thorough, polite, genuine, and professional.*

According to participants, simulation training brought to life and reinforced the key values of genuineness, empathy, and respect. Though these are key values and part of procedure, enacting them with others may still be complex:

> *This simulation was very eye opening for me. I realized a lot in supervision and how to form my words, never assume and to be respectful of the home. This is a great simulation to have.*
>
> *Learning to be okay with not "being in control" because families are the ones we have to adapt to and engage. Also, that things may not go how I want them to go and that is okay but to keep pressing and showing empathy.*

*I learned that engagement skills are critical in connecting with clients. It's important that we stay focused on empathy and the matter at hand.*

*To be more mindful of the caregiver behavior and to utilize the critical thinking and compassion skills to engage with the family.*

Respondents also described the experience of managing essential job-related knowledge and skills alongside their own cognitive and affective responses in the court setting:

*Keeping a poker face during testimony, avoid distractions during testimony, answer questions clearly and be descriptive with details or observations.*

*Learning how to use the CANTS 2A today was very helpful, and how important it is to point out the family's strengths along the way to keep them engaged and open to communicate as much as possible.*

Other comments discussed additional ways in which simulation training fostered metacompetencies that support practice skills. One comment concern addressing safety issues in the home:

*It is okay to discuss with the parents your concerns on what you see in the home*.

Another important skill that was supported was using self-care:

*The most meaningful concept we covered today would be to allow Procedure 300 to guide us in the investigation process, always meet the family where they are, and to take time for SELF CARE.*

**Self-Awareness**

The foundation of one's ability to engage in sensitive and effective interactions with diverse individuals is self-awareness. Several comments expressed the effect of simulation training on increasing self-awareness:

*Today, my reflection is based on my ability to continue to understand how I come off to people and portray myself. From my previous experience working at the Juvenile Detention Center, I would also be more assertive because we were dealing with some aggressive and hostile youth. I understand that at times I would be more "military" like and more assertive which is a fault, but I understand how to approach people and quickly change my personality and approach. I also appreciated the feedback on how to change this…. And then changing my approach on how I explain that there was one report and not multiple based on there being 3 allegations.*

*Being aware of my physical interaction, so that it doesn't appear threatening or intimidating to the family that I am interviewing. Slowing down in my communication with the parents of the child victim.*

*I learned something about my method of engagement which worked well in my previous job but does not work as well in my role as child protection specialist.*

*I need to dial back my authoritativeness when talking to the actors.*

Self-awareness includes recognition of bias and its impact on investigation, which is a critical metacompetency for child welfare workers. Recognizing bias can improve investigation and decision and can contribute to investigators' cultural humility. Trainees reflected on the role that simulation played for them in addressing bias:

> *I learned how to eliminate bias, even on the small concepts. I am able to identify the facts of the case a little better than previously.*
>
> *I learned to lay aside my own personal biases and be fair to the family being interviewed.*
>
> *Be aware that our definition of something may be different than the family's definition, for example safety.*

Some participant comments also connected investigation skills with the importance of critical thinking and application of the problem-based learning model taught in CPTA training.

> *I need to be in the moment even if the situation presents lots of information at one time…. I should not make assumptions and should talk to everyone and collect all the evidence before thinking I have the answer; they remain hypotheses until all evidence is collected.*
>
> *I love that the facilitators really provoke more in-depth analysis of the cases and make us think more critically about our responses to scenarios.*
>
> *Questions about my hypothesis and assumptions and how to formulate them into questions to use in the interview process. Also, how to address the possible and most likely questions from the reporter during the simulation. How to track down other information before interviewing the reporter and during the investigation. Seeing an actual interview of the reporter.*
>
> *Never assume, always ask questions. The more you ask the more you will find out.*

One useful concept for promoting effective work with diverse people is the strengths-based approach. The ability to see strengths in families and to approach others with the belief that they have important strengths and capacities can be critical to the client experience of the investigation, to safety planning, and to one's own growth as a DCFS worker:

> *To be strength based and create "buy in" even when addressing safety concerns to keep the family engaged in the process.*
>
> *Learning to be careful with identifying and mitigating concerns.*
>
> *Identifying strengths and concern; engaging families with genuine behavior, empathy, and respect; and learning from others.*
>
> *I learned how to be a bit more compassionate and guiding when going through the home safety checklist with families, and to be more cognizant of recognizing strengths of the family and sharing those with the family.*
>
> *Today, I found that I need to change my approach on how to engage in gaining evidence for the case. Specifically, how I approach gathering pictures and asking more open-ended questions to the families. I thought the feedback from the actors/actress was*

*extremely helpful when it actually came time to take pictures. I need to make sure I educate more rather than focus so much on the negatives which I understood as I was going through the investigative process. Family strengths are just as important as gathering information that is concerning. I would say that I wish more time was focused on going through the safety plan and home safety check list. Although it was portrayed as being easy, I think the real feel would be beneficial and helpful if we actually went through it [while] the simulation was going on.*

Another subtheme within the overall domain of self-awareness was the ability to adapt responses and investigative process to the client's needs and strengths. This manifested as realizations about pacing of the interaction, choice of words, and interactional approach:

*Being able to read each person differently and helping to keep them engaged to get a full story.*

*Interviewing skills, identifying strengths and needs of a family, addressing concerns that family shares, being okay with family not wanting help and developing a solution.*

*I felt this activity was very hands on and the situation felt very real of how a family I may see in my future. I liked how things were pointed out of how to handle certain situations and how to ask in a different way to make the family feel more comfortable. Getting the feedback from my trainers was very helpful.*

Metacompetence incorporates the concept of use of self and the importance of authenticity in interactions with clients. These amorphous but critical skills are difficult to teach outside of actual or simulated interactions with people that allow workers to begin to know themselves in the role and to recognize how to integrate authenticity and self into the work. In the words of one individual, a simulation lesson was "*own your own style.*" Additionally, trainees stated:

*That it is best, to be your true self as it is the steppingstone to meeting the families where they are.*

*Engagement, focus, compassion, and making sure to bring my personality into this role.*

**Managing Emotional Intensity**

The third domain of metacompetence in the data relates to a worker's ability to perform the investigative elements of the job while managing the affective/emotional responses of themselves and others. The ability to accurately assess and effectively respond to resistance, anger, fear, confusion, and other client emotions is critical for the child protection investigator. Experiencing the intensity of client responses while meeting the tasks of the job is not something easily taught in a passive classroom setting, cementing the value of simulation to prepare workers for what can be extraordinarily difficult, even dangerous situations. The simulation experience involves some client resistance and emotion, providing trainees the opportunity to practice managing such situations:

*How to address the resistance I may face when first engaging with a family…*

*I learned to stay calm, slow the pace down, and normalize the family's feelings about being fearful, concerned, or on edge about why a DCFS investigator was showing up to their home.*

*Engaging the family, not falling into the family being resistant or hesitant, continuing to do our job as necessary and required.*

*I REALLY appreciated this opportunity to articulate my role as a Child Protection Specialist as well as what DCFS does and etc. I also thought resistance of the actors was helpful to prepare what could potentially happen. Plus, listening to other classmates' feedback from both the trainers and actors were helpful.*

*Interviewing parents at a safe location after having visited the home, especially when they are getting escalated from being so frustrated.*

*The way that the family was difficult to work with…It showed how a real family sometimes does not want to always be open and honest with what is going on.*

*How to power through resistance when interviewing caregivers, while still engaging them.*

*What not to say that will trigger resistance.*

*Learning how to get off the "hamster wheel" with the paramour and bringing the conversation back to the issue while still allowing the paramour to feel heard.*

In short, trainees reflected on learning *"how to respond to unexpected situations"* through the simulation experience. In addition to the ability to sense and respond to clients during the course of a child welfare investigation, workers must also refine their ability to manage their own emotional responses. Comments reflect skills such as controlling facial expressions so as to not reveal bias or emotion and proceeding with the required steps while managing one's own nerves or fear.

*Simulations is very helpful… you never know until you get in the moment how to react. It really brought home every case is different.*

*The most meaningful concepts/skills learned in training today was the importance of remaining calm in situations when the parents react in a much higher frequency.*

*How to keep my tone even and speak to the parents in terms they understand and want to hear.*

*Making sure to stick to the facts and not get too overwhelmed by our opinions. Identifying the needs of the family and fully disclosing the process to the family and what is expected.*

*To continue to be engaged with families and take time to listen to them and being attentive. To also continue to keep a calm demeanor about myself as it will help the families I am working with and also help them to remain calm.*

*Remain calm in a hectic situation.*

*Learning to slow down and realizing I need help learning to clarify the process and procedure to the clients.*

*I need to be aware of my facial expressions or other non-verbal cues when interacting with others/parents.*

Trainees acknowledged the experience of discomfort in completing the simulated investigation and reflected on the importance of learning how to manage it in the moment:

*Learning to address situations that were uncomfortable in the moment.*

*Knowing to slow down so that I won't miss anything. Sometimes it may take me being uncomfortable.*

*I learned how uncomfortable it can be to ask strangers to show me their baby and how to overcome that in a professional and respectful way.*

*Today was court testimony. In the courtroom I learned how to ignore distractions and to pause when a distraction was going to overshadow what I was testifying too.*

*How to deal with our fears during our investigation with the clients.*

*Respond to people's questions when asked without getting frozen.*

*How to respond to unexpected situations.*

*Today I learned that this visit was very intense. I learned to be ready for anyone to say anything. It was helpful to learn about the plastic bands and dog cage and observe that child may be kept in dog cage.*

The ability to attend to one's own safety and to utilize caution also emerged as critical learning for trainees in simulation. Investigators must learn the ability to respond quickly if needed:

*Engagement and being aware of your surroundings and able to handle any situation presented.*

*To always observe my surroundings and make sure I do not put myself in unsafe situations. For example, not having my back to the door.*

*Be aware of your surroundings and the social dynamics of each family.*

These data suggest the impact of simulation for the self-efficacy of participants. This influences the application of policy to practice and the capacity to engage and respond to people in the moment. The comments below provide evidence of the effect on self-efficacy:

*I really felt that the simulation was helpful in giving me the confidence that I need to know that I will be able to go into a client's home, engage them and complete a thorough interview and subsequent investigation.*

*Learning that I am better at interviewing the reporter than I think but could still use more practice.*

*I learned a great deal from watching others. I realize I have strong empathic skills. I need to work on articulating the process to the parents.*

*Helping me realize that I can do this job and that I know the information and that I have [to give] myself more credit than I do.*

*Today was amazing... wow this SIMS day helped me actually go through and do things that I will be doing when I go on a call. I was so nervous in the beginning, and I felt like "what if I mess up"? But that didn't happen!!! I felt confident and knowledgeable. I felt like an Investigator!!! Having the team come out and redirect and give great feedback was terrific!!*

*Testifying in court today helped my fear decrease going forward.*

*To remain confident-- no one knows the case better than me..*

Many trainees commented on the importance of simulation to their ability to articulate policy and procedure with others. This meant practice in actually finding the words necessary to engage families, to ask hard questions, and to proceed with safety planning and other action. Investigators must know what needs to be said or asked per policy and procedure, but also *how* to do it in the moment:

*The most meaningful concepts or skills learned today was being prepared to address difficult conversation and expressing empathy at the same time. I also think is imperative to be prepared with speaking with doctors and other professionals.*

*Learning how to interview the parents/caregivers and ask them difficult questions, such as questions about possible domestic violence, was beneficial. It was also beneficial to see how to present the idea of a safety plan to a parent and try to get them to agree to one.*

*It was beneficial to continue the interviews separately and take the opportunity to practice having those difficult conversations with parents.*

*It was helpful to practice the individual interviews to ask the difficult questions regarding Domestic violence, Safety plan [versus] PC.*

*I enjoyed being able to have the conversation with the parents about the need for protective custody. This is a hard conversation to have, and it was good to have that practice.*

*Asking the right questions—navigating the conversation to get to the root of the allegations.*

*Deeper thinking into questions to ask the reporter.*

*This simulation was very eye opening for me. I realized a lot in supervision and how to form my words, never assume and to be respectful of the home. This is a great simulation to have.*

*Debriefing with the other investigators was extremely helpful with identifying additional questions and information pertaining to the investigation.*

On the whole, the ability to be in the moment and to "walk the walk" of an investigation in simulation was invaluable to trainee preparation:

*I learned how to engage the family and to pick up on cues that was given. I learned that while engaging the family you answer questions that come up and you bring the family back to the task at hand.*

*I need to be in the moment even if the situation presents lots of information at one time.*

*Learned to pay attention to gut feelings and ask more questions*

*I need to not feel rushed in the home, and even if I do I need to slow down and understand that I need to stay calm and get the job done.*

*If I have gut feeling I should always stick with it and get the questions I need answered.*

Some trainees described the value of confronting their fears about the job and their own ability to meet its demands:

*Testifying in court is something that I want to get better at. It is the area of most concern for me, and I know that experience will help. So just need to wade into those waters.*

*We talked a lot about our concerns and fears, and it was helpful to address things we were afraid of before going into the home.*

Another interesting finding here was a recognition by trainees of the emotions that accompany learning their job. Comments reflected participants giving themselves permission to learn at their own pace, and the realization that these skills develop over time. This is critical to both an individual's willingness to engage in continual professional development as well as to manage self-doubts.

*I feel I have been overconfident about my assessment and engagement skills. I do think I will get better with time.*

*I think the most useful thing I learned is that it's ok to not know everything and to be in a position where you have to revisit a previous topic to get more.*

*Recognizing that you will have to adjust and feel comfortable and that it gets easier as the time goes on.*

*It's okay to be nervous until you find the style that works best for you. Be upfront with the reason that you are coming to the home, so the family doesn't feel as if you are being misleading about why you are there.*

**Effects of Simulation Training on Procedural Competence**

This chapter focuses on metacompetence because of the special contribution of simulation training to this form of skill. But it is also important to report that a number of trainee comments credited simulation training with helping them develop procedural competence too. Below are trainee comments focused on this form of competence.

*To slow down as the family is trying to take in all this information. Procedure is a must know so that you can explain why you're doing what you're doing*

*The most meaningful skills I've learned in training is wording, the importance of using correct DCFS terminology.*

*Questions to ask the reporter. I never knew how much to ask and what was appropriate to ask. I found this to be extremely helpful.*

*Discussing the questions that reporters need to be asked and how to dig deeper.*

*It was helpful for the simulation trainer to break down the report to show all of the aspects in the report for each allegation. It was helpful to generate questions, and also after speaking with the reporter to determine what the next steps in the investigation will be and what documentation needs to be completed.*

*It is ok to think of questions after the fact and call the reporter back at a later date if needed.*

*I also learned that we must keep certain documents for the investigators eyes only, sharing only small safe amounts with the client.*

A key task in simulation is the safety assessment of the child in the home environment. Trainee comments reflect the importance of learning this experientially as well as in the classroom:

*The importance of observing the entire and complete body of the child. Obtaining explanations for each injury on child. Focus on the injuries of the child, recording and describing them. Collect as much information about the injuries as possible. Be attentive of the environment and seek information for environmental concerns.*

*The importance of not only identifying safety hazards in the home but also educating parents about them and identifying possible solutions. Also recognizing how essential it is to observe a baby without clothes on, seeing the whole body.*

*The other important skill was making sure that the whole body of the child is being observed. If the parents are covering any inch of the body, make sure you ask them to move their hand and position the baby to be able to see every part of the child.*

*Focusing on immediate safety concerns and addressing them directly with parents Being able to have crucial and educational conversations with parents/caregivers and addressing safety threats right at the moment.*

*How to stay on track and identify safety hazards and use it as teaching moment but also as part of identifying safety issues.*

*Being more mindful when checking out environment and addressing for immediate mitigation. Directing parents to let worker check the baby from head to toe and responding to their hesitation appropriately.*

*I found the scene investigation today very good practice. It is very different being in the family presence and looking for dangers within the home. Some of the feedback highlighted some of the items missed and some of the additional steps to take in the future.*

*I thought the feedback given on the allegation on Cuts/Welts/Bruises was helpful to explain to the family as more of an "injury" rather than an allegation or all three of those being an "accusation" of the family.*

## Discussion

The findings demonstrate the ways in which simulation training promotes metacompetence among trainees in the CPTA simulation training program. There was robust evidence for progress in developing metacompetence in the domains of Skills in Action, Self-Awareness, and Managing Emotional Intensity. Trainees reported that they were learning to engage families, to think critically, communicate effectively, avoid assumptions and overcome bias, consider their roles, utilize self-reflection, develop empathy, focus on clients' strengths, and deal with both clients' and their own emotions. These are hallmarks of metacompetence in child welfare. Trainee comments also provide evidence that simulation training was helping them develop procedural competence as well.

A remaining question concerns whether the findings on meta-competence will generalize to other simulation training programs in child welfare. Future research is needed to test this, but we may learn something by comparing our results to those from Tufford and colleagues' study. As noted above, Tufford and colleagues studied metacompetence among Bachelor of Social Work students, who conducted a 15-minute mock client interview with an actor as part of their senior year coursework.[28] Tufford's study differed from the current research in the nature of the sample and the simulation task, and students' data may have been affected by other learning in their academic program. Moreover, the results on metacompetence were probably influenced by the specific questions that were asked. Tufford and colleagues conducted a qualitative analysis of answers to questions such as "Did issues of diversity affect your approach in the interview?" and "How might this learning experience influence your approach to other clients?"

Despite the differences between Tufford et al.'s study and ours, the results are similar in several ways. Tufford et al.'s metacompetence theme of Foundational Skills Versus Theoretical Knowledge resembles our domain of Skills in Action. Likewise, Tufford et al.'s theme of Managing Client Intensity resembles our domain of Managing Emotional Intensity. Our theme concerned both client and worker emotions while Tufford et al.'s theme focused on clients, but Tufford et al. also described how students managing client's intensity were "reflecting on their internal affective processes" (p. 100). Tufford et al.'s theme of Openness to Learning related to our domain of Self-Awareness, especially since those students open to learning "focused on specific aspects of their performance that could be improved" (p. 100), just as several of the self-aware trainees in our study reported doing.

Tufford et al.'s theme of Deepening Perspectives of Diversity no doubt related to their asking a question about diversity and may have been influenced by students' coursework. It has no close parallel in our results. We found in the data self-reflection, self-awareness, and work on minimizing bias These metacompetencies offer an excellent foundation for building capacity related to diversity. In last year's evaluation report, we mentioned trainees' suggestions to improve how simulation training addressed cultural diversity, and we recommended exploring

[28] Tufford, L., Bogo, M., & Katz, E. (2017). Examining metacompetence in graduating BSW students. *Journal of Baccalaureate Social Work*, *22*(1), 93-110.

ways to respond to these suggestions.[29] One useful source for applying simulation training to issues of diversity is Leake and colleagues' work on the benefits of child welfare simulation training for cross-cultural work.[30] In their study, simulation training for work with Latino families exposed areas of unintended bias, but also supported reflection and discussion that promoted development of cultural responsiveness.

Decision-making in child welfare investigation is complex, and the competencies that prepare people for the role should reflect that complexity. The enacted behaviors in simulation support the development of both procedural competences and metacompetence.[31] Simulation training supports both the cognitive and affective metacompetencies so important to child welfare work. Examination of metacompetence as an outcome of simulation training may allow for a better understanding of how trainees synthesize knowledge and skills into an overarching ability to act ethically, according to policy, and in a way that is responsive to unique individuals and contexts.

[29] Cross, T.P. Chiu, L., Wang, S., Tran S., Lee, L. & Havig, K. (2021). *FY2021 program evaluation of the Child Protection Training Academy for new DCFS investigators*. Urbana, IL: Children and Family Research Center, University of Illinois at Urbana-Champaign. https://cfrc.illinois.edu/pubs/rp_20210908_FY2021ProgramEvaluationOfTheChildProtectionTrainingAcademyForNewDCFSInvestigators.pdf

[30] Leake, R., Holt, K., Potter, C., & Ortega, D. M. (2010). Using simulation training to improve culturally responsive child welfare practice. *Journal of Public Child Welfare*, *4*(3), 325-346.

[31] See also, Kourgiantakis, T., & Lee, E. (2020). Social work practice education and training during the pandemic: Disruptions and discoveries. *International Social Work*, *63*(6), 761-765.

## Chapter 4: FY2022 Post-Training Satisfaction Survey

All newly hired child protection investigators participate in Certification Training for Child Protection, which includes five weeks of classroom training followed by five days of simulation training. DCFS administers an online post-training satisfaction survey on the Certification Training experience to trainees. Ten survey questions ask about trainees' assessment of simulation training. Survey respondents provide written responses to two open-ended questions about their appraisal of simulation training and rate the quality of simulation training on eight Likert-scaled questions. For this year's evaluation, DCFS provided data from the post-training survey from March 1, 2021, to February 10, 2022. This chapter analyzes data on simulation training from the FY2022 post-training survey to assess trainees' experience of simulation training. We utilized a mixed-methods approach involving both qualitative and quantitative analysis.

## Qualitative Analysis of Post-Training Feedback

### Methods

A total of 127 trainees completed the post-training survey. Dividing this number by the total of 184 trainees who completed simulation training yields a response rate of 69.0%. Two members of the program evaluation team conducted a qualitative analysis of participant written comments. Two open-ended questions asked about trainees' experience of simulation training: 1) "Comment on this experience" and 2) "Please add a few statements that summarize your experiences in the Simulation Labs to help us improve the scenarios." Because these questions were similar and the answers to the two questions did not differ thematically, we combined respondents' answers to the questions and analyzed the text from both questions. After reviewing the comments, we identified four a priori codes that represent broad categories of participant feedback on simulation training. We describe these codes below, along with brief quotes illustrating the category. Beyond these brief comments, we will not include direct participant quotes, because they contain substantial identifying information on the trainers and the trainees. The four codes were as follows:

**Primarily positive experience/feedback.** Comments such as "this was a great experience", or "the day in court was especially helpful" typified this category. We included participants in this category when they expressed positive feedback or gratitude, described acquired learning, or expressed enhanced confidence. Note that we coded participants in this category if they provided both positive and negative feedback, but their feedback was primarily positive.

**Negative perception of experience with expression of negative affect**. We used this category for participants who gave negative feedback about simulation training and expressed a negative emotional response in their written answers. We created this category because a number of trainees provided negative feedback that included a description of negative affect they felt. This suggested a very different training experience from trainees who provided negative feedback but did not express negative affect. A representative comment might reference such experiences as "feeling disrespected" or "overwhelmed". These respondents often attributed their negative experience to what they reported as inappropriate or unprofessional behavior by the training team.

**Negative perception of experience without negative affect**. This code was important to highlight those comments that were negative about the training but did not communicate negative emotional responses. Comments in this category included "we didn't have enough time to properly debrief, and I think it's important that people have that in simulation training," or "we were told conflicting information between classroom and simulation training."

**Did not answer**. Finally, if a text question was left blank by a participant, we coded that response as Did not answer.

Using these codes, two researchers coded each participant independently, based on the text from the two open-ended items. They achieved acceptable interrater reliability, Cohen's kappa = .68. The two researchers then compared their codes to identify discrepancies and chose a consensus code when they disagreed. Organizing and synthesizing the data in this way allowed us to determine what percentage of the respondents on the post-training survey had positive or negative experiences, and to offer a bit more nuance in describing the nature of a negative experience.

When we examined the text from the open-ended questions, we noticed that some respondents reported that the use of virtual rather than live methods diminished the value of the training, or that they would have preferred to receive the training live rather than virtually. Therefore, one of the researchers counted each respondent to determine whether they commented negatively on the virtual nature of the training or compared it negatively to live training.

**Results**

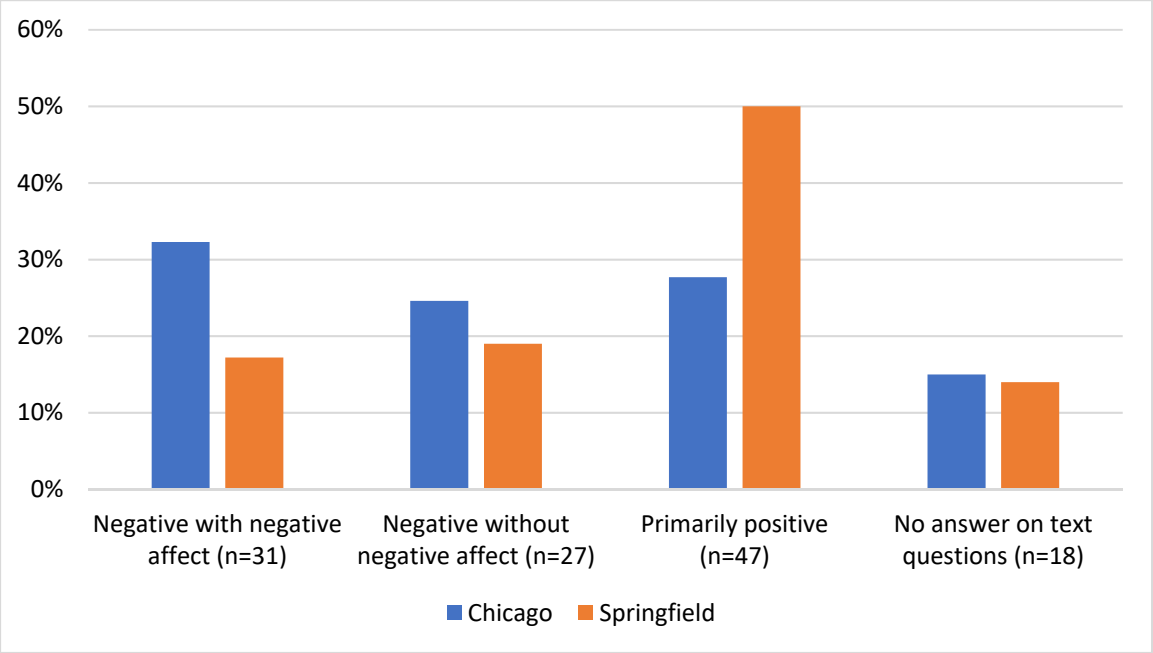
Figure 4.1 shows the percentage of respondents that were coded into the four feedback groups for the Chicago and Springfield laboratories. Exactly half of respondents trained through the Springfield laboratory reported a primarily positive experience. Most of the others trained through the Springfield laboratory reported a negative experience, more without negative affect (19.0%) than with negative affect (17.2%). The majority of the respondents trained through the Chicago laboratory reported negative experiences, more with negative affect (32.3%) than without negative affect (24.6%). About one-third of participants in the Chicago (27.7%) provided feedback that was primarily positive. Some participants from both labs did not answer these questions (15.4% for the Chicago lab and 13.8% for the Springfield lab).

Nineteen respondents (15% of the sample) reported that the use of virtual methods diminished the value of the training or that they would have preferred to receive the training live rather than virtually. Among the specific difficulties with virtual training that were mentioned were

- difficulty hearing what fellow trainees were saying and following what they were doing;
- the difficulty of viewing the scene being investigated, particularly on a cell phone;
- the difference in dealing with an agitated person over Zoom versus in-person;
- the diminished seriousness of doing simulations virtually;
- the physical and mental demands of sitting in front of a computer for eight hours a day.

**Figure 4.1**

*Proportion of Respondents in the Four Feedback Groups by Site (N=123)*




*Note.* Site information was missing for 4 respondents.

## Quantitative Analysis of Post-Training Feedback

### Methods

The post-training survey includes eight items in which trainees rated the quality of simulation training on 5-point Likert scales. We first computed descriptive statistics for the entire sample on these scales. The very different experiences of the four feedback groups suggest that statistics for the overall sample do not adequately profile trainees' appraisal of the training. For this reason, we also compared the four feedback groups on their mean scores on each rating scale using one-way analysis of variance. When group variances were heterogeneous, we used Welch's alternative F test[32]; unlike the standard F test in analysis of variance, Welch's test does not depend on the assumption of homogeneity of variance. We used Tukey Honestly Significant Difference Test to determine which group means differed significantly when group variances were homogeneous, and the Games-Howell Test to determine which group means differed significantly when group variances were heterogeneous.

### Results

Figure 4.2 shows the distribution of ratings on the satisfaction items for the entire sample of FY2022 (N=127). Majorities of respondents ranging from 64.0% to 73.8% agreed or strongly agreed with most of the items. Somewhat smaller majorities agree or strongly agreed with "*The scenario environment was realistic and I was able to incorporate my training into practice"*

[32] Welch, B.L. (1951). On the comparison of several mean values: An alternative approach. *Biometrika, 38*, 330-336.

(61.9%), and *"I felt the training was conducted in an environment conducive to learning"* (59.7%).

The percentage disagreeing or strongly disagreeing exceeded 20% for four items: "*I felt the training was conducted in an environment conducive to learning"* (28.2%), *"The scenario environment was realistic, I was able to incorporate my training into practice"* (27.8%), *"The SIM lab provided a realistic experience of the challenges I will face when working in the field"*(21.4%), *and "Participating in the scenarios helped to increase my confidence in my role"* (23.2%). On all of these four items and on "*I felt respected during my debriefing,"* over 10% of respondents strongly disagreed with the positive statement presented in the items.

**Figure 4.2**

*Distribution of Training Satisfaction Ratings (N=127)*

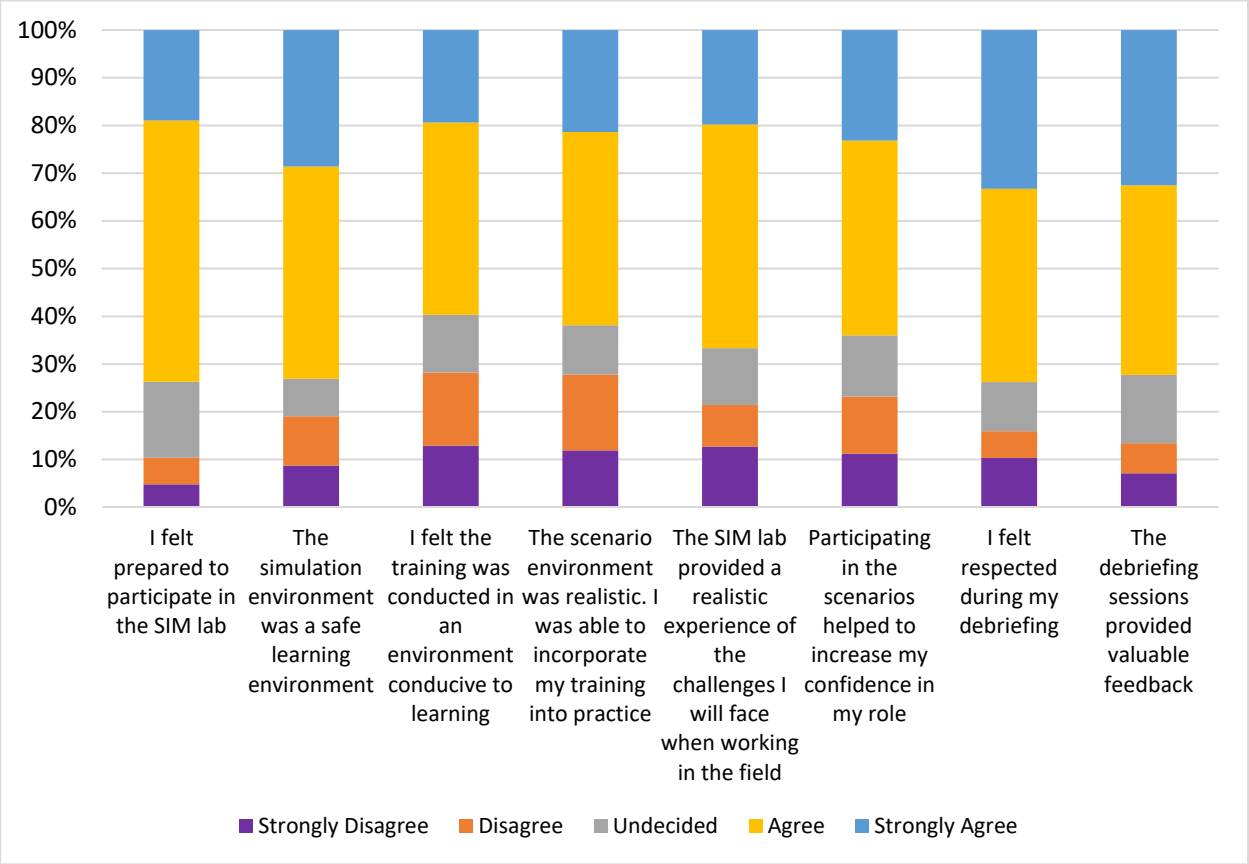



Figure 4.3 shows the differences between means for the four feedback groups on the eight Likert-scaled items on which participants rated their satisfaction with simulation training. Table 4.1 shows the results for these comparisons on statistical significance testing, post-hoc comparison of means tests, and effect size. The four feedback groups differed dramatically on most of the survey items, with very large effect sizes. The mean of *negative with negative affect* group was significantly lower than all the other groups on seven out of eight items (all except "*Felt prepared for sim training").* The means for the *negative with negative affect* group on

these seven items ranged from 2.0 to 2.5, indicating that, on average, they disagree with the positive statement presented in the item.

The *negative without negative affect* group was also significantly lower than the *positive* group on all these variables, except that there was no significant difference on "*The simulation environment was a safe learning environment*." On the other hand, there was only a statistical trend for the differences between the four groups on feeling prepared ahead of time for simulation training, and no significant differences between individual groups as the post-hoc comparison of means test result indicated.

To illustrate in greater depth how the four feedback groups differed, Figure 4.4 compares the groups on their answers to the item, "*I felt respected during my debriefing*." In three of the groups (omitting the negative with negative affect group), large majorities of respondents agreed or strongly agreed that they felt respected (the yellow and blue portions in Figure 4.4), and few people disagreed with this statement. On the other hand, in the negative with negative affect group, 35.5% of respondents strongly disagreed with this statement and 12.9% disagreed (the purple and orange portions of the figure). This means that 15 people or 12% of all respondents, felt disrespected.

**Figure 4.3**

*Differences Between the Four Feedback Groups on Mean Satisfaction Item Scores*

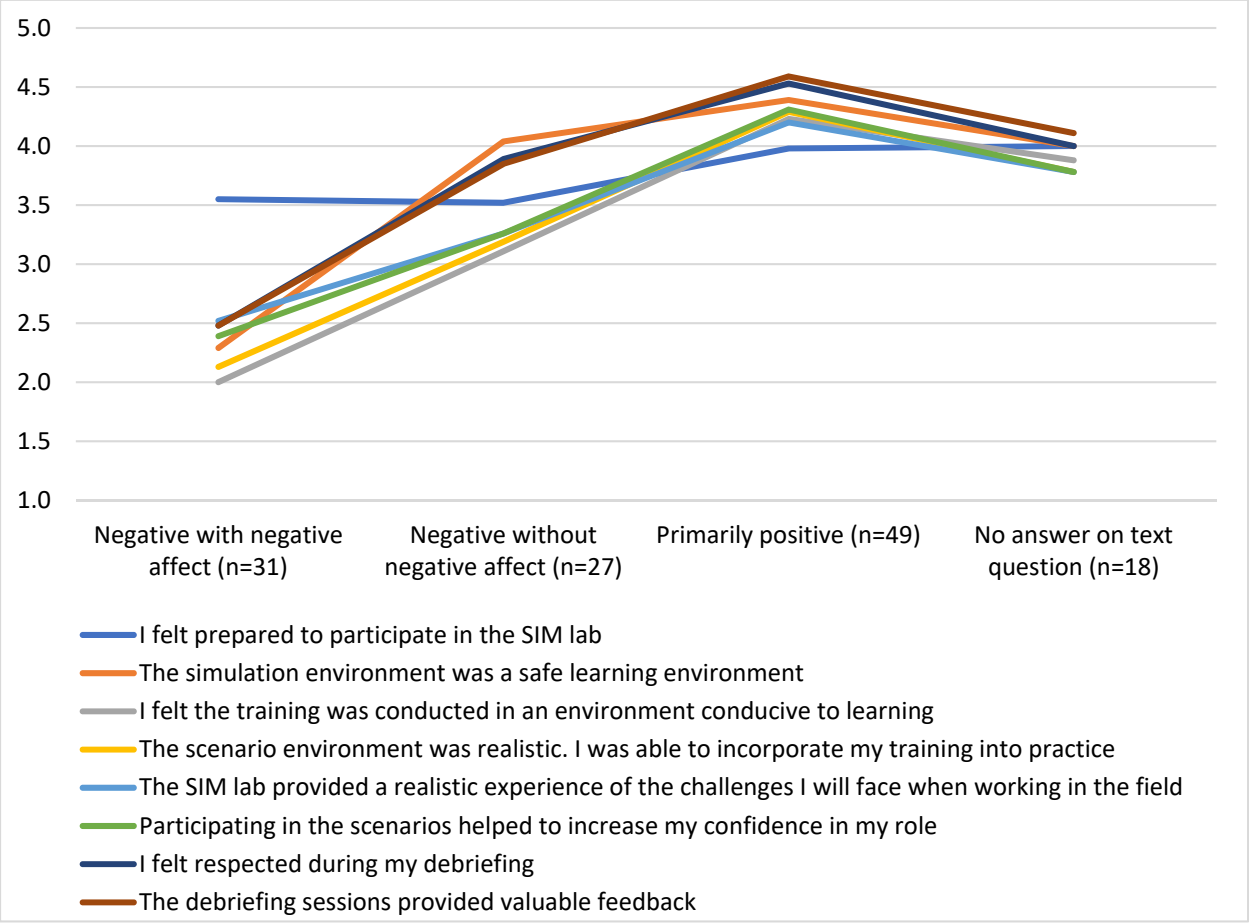


**Table 4.1**

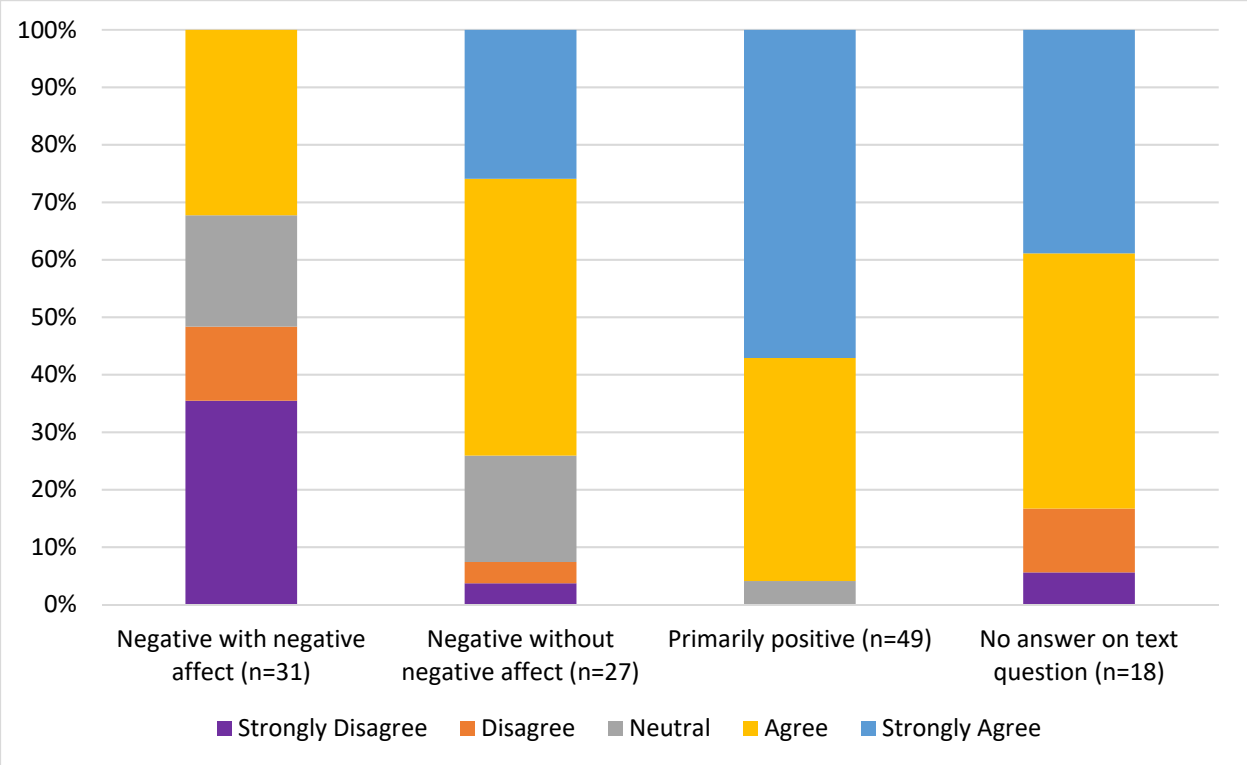
*Statistical significance tests, post-hoc comparison of means tests, and effect sizes for comparison of the four feedback groups on mean satisfaction item scores*

| Satisfaction Items | Significance Test | Post-Hoc Comparison of Means Tests | η2 |
|---|---|---|---|
| Felt prepared for sim training | Welch F (3, 53.37)=2.47+ | NS | .05 |
| Safe environment | Welch F (3, 52.07)=22.44*** | NN<N,P,NA | .47 |
| Conducive to learning | Welch F (3, 119)= 35.72*** | NN<N<P,NA[a] | .47 |
| Realistic environment | Welch F (3, 48.43)=28.26*** | NN<N,P,NA N<P | .43 |
| Realistic challenge | Welch F (3, 49.02)=16.22*** | NN<P N<P | .29 |
| Increased confidence | Welch F (3, 47.35)=23.07*** | NN<N,P,NA N<P | .36 |
| Felt respected | Welch F (3, 45.63)=24.00*** | NN<N,P,NA N<P | .41 |
| Valuable feedback | Welch F (3, 49.04)=33.77*** | NN<N,P,NA N<P | .31 |

*Note.* Game-Howell post-hoc comparison of means test used except as noted. NN=negative with negative affect, N=negative without negative affect, P=positive, NA=no answer. [a] Tukey's Honestly Significant Difference test. + p < .10, ***p<.001

**Figure 4.4**

*Differences between the Four Feedback Groups on the Item "I felt respected during my debriefing"*



## Discussion

The FY2022 post-training survey data suggest that there was no typical reaction to simulation training in the CPTA. Many respondents had a positive experience and some of them enthusiastically endorsed the training. Some had a negative experience without expressing negative affect. Some had a negative experience and reported noticeable negative feelings about it, perceiving that they were disrespected or feeling appalled. There was no typical score on the satisfaction items—it depended on trainees' overall experience, which was distinctly different for these groups. Note that some of the respondents who overall had a negative experience did give positive ratings on at least some of the rating scales.

Unfortunately, we lack data on the characteristics of the trainees, so we cannot assess whether certain types of trainees tend to have a good versus poor simulation training experience. There were differences between the Chicago and Springfield laboratories that can be explored by the directors of these laboratories, but there were trainees at each of these laboratories who had all of these experiences.

Most trainees did not comment on the virtual nature of the training, but this was a significant impediment to the quality of the training for a small minority of them. Clearly, no one prefers doing simulation training virtually, but doing so did not substantially diminish most trainees' experiences. Most of the trainees in the negative groups did not focus on the virtual nature of the training, though they may have complained about it. Instead, they talked about their interactions with the training team.

A limitation of the post-training survey is that it has a lower response rate than the DEST. This raises the question of how representative it is of all trainees. Those who completed the post-training survey may differ systematically from those who did not complete it. They may have been more dissatisfied on average than the entire set of trainees. The different response rates may help explain differences between the DEST and post-training survey results.

These results need to be a beginning point for inquiry. Even if most trainees have positive experiences, we need to understand why some have negative experiences, including experiences that leave them with negative feelings such as feeling disrespected. It is difficult to imagine a good outcome for any human encounter in which someone feels disrespected. Areas to explore include changes in recruiting and hiring child protection investigators, the nature of the classroom training and its coordination with simulation training, stress related to the nature of the support for each training laboratory, the quality of the simulation training, and the contribution of each member of the training team. We recommend further qualitative research including interviews with trainees to try to assess why their experiences of simulation training differ so much. We discuss these matters more in the final chapter.

## Chapter 5: Historical Analysis of the Post-Training Satisfaction Survey

The CFRC has been analyzing and reporting results from the post-training satisfaction survey of new child protection investigators for the past six years. In our FY2019 report, we conducted a historical analysis and concluded that scores from FY2016 and FY2017 were significantly higher than scores from FY2018 and FY2019, though all scores on average indicated satisfaction.[33] The current chapter extends that historical analysis.

As a result of COVID-19, the simulation training was conducted virtually between FY2021 and FY2022.[34] Previously we observed a decreased satisfaction when we reported the annual results in FY2020[35] and in FY2021.[36] Therefore, we conducted a more thorough historical analysis this year. This chapter analyzes trainees' satisfaction ratings on simulation training from FY2016 to FY2022.

### Methods

We used all the post-training satisfaction data that we have received from DCFS between FY2016 through FY2022. The analysis focuses on 8 questions about simulation training from the survey. Each of the items uses a 5-point Likert scale (strongly disagree=1; disagree=2; undecided=3; agree=4; strongly agree=5). To examine differences across fiscal years, we conducted one-way analyses of variance (ANOVA) to compare means on each item across years. We used the specific ANOVA method of trend analysis to see whether the pattern of means followed a straight line (linear trend) or a curved line (quadratic trend). We also employed Cohen's d to examine the effect size of the difference between means for selected years.[37]

The link to the post training satisfaction survey was sent to some participants before they received the simulation training. If the respondents indicated in their open-ended responses that they had not participated in the simulation training, we excluded their responses from our analyses. The situation occurred mostly during FY2021 when the simulation training was paused at the beginning of the COVID-19 breakout.

The date of the post training satisfaction survey data that we last received from DCFS was February 10, 2022. Between February 2016 and January 2022, 1,060 trainees received

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[33] Chiu, Y., & Cross, T. P. (2019). *FY2019 Program Evaluation of the Child Protection Training Academy for New DCFS Investigators*. Urbana, IL: Children and Family Research Center, University of Illinois at Urbana-Champaign.

[34] The CFRC received the FY2022 post training satisfaction survey data up to February 10, 2022 from DCFS. The trainees received the training by the time in FY2022 still went through the virtual training even though the simulation training was transitioned back in person in March 2022 at the laboratory of University of Illinois at Springfield and in May 2022 at the Chicago laboratory.

[35] Chiu, Y., Lee, L., & Cross, T. P. (2020). *FY2020 Program Evaluation of the Child Protection Training Academy for New DCFS Investigators*. Urbana, IL: Children and Family Research Center, University of Illinois at Urbana-Champaign.

[36] Cross, T. P., Chiu, Y., Wang, S., Lee, L., Tran, S. & Havig, K. (2021). *FY2021 Program Evaluation of the Child Protection Training Academy for New DCFS Investigators*. Urbana, IL: Children and Family Research Center, University of Illinois at Urbana-Champaign

[37] Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112, 155-159.

simulation training. A total of 641 participants responded to the simulation training questions, excluding the participants mentioned in the last paragraph. The estimated response rate is 60%.

## Results

Figure 5.1 showed a downward trend across years on all items but one (I felt prepared to participate in the SIM lab), with a steep drop from FY2020 to FY2022. Excluding the "I felt prepared to participate in the SIM lab" item, the average ratings of the rest of the seven questions were between 4.8 and 4.9 in FY2016, between 4.6 and 4.8 in FY2017, between 4.3 and 4.6 in FY2018, between 4.2 and 4.5 in FY2019, between 4.3 and 4.6 in FY2020, between 3.6 and 3.8 in FY2021, and between 3.4 and 3.8 in FY2022. When simulation training was conducted virtually in the past two years, the average ratings dropped below 4.0 (4.0 = agree with the positive statements).

**Figure 5.1**

*Simulation Training Satisfaction Rating by Fiscal Year*

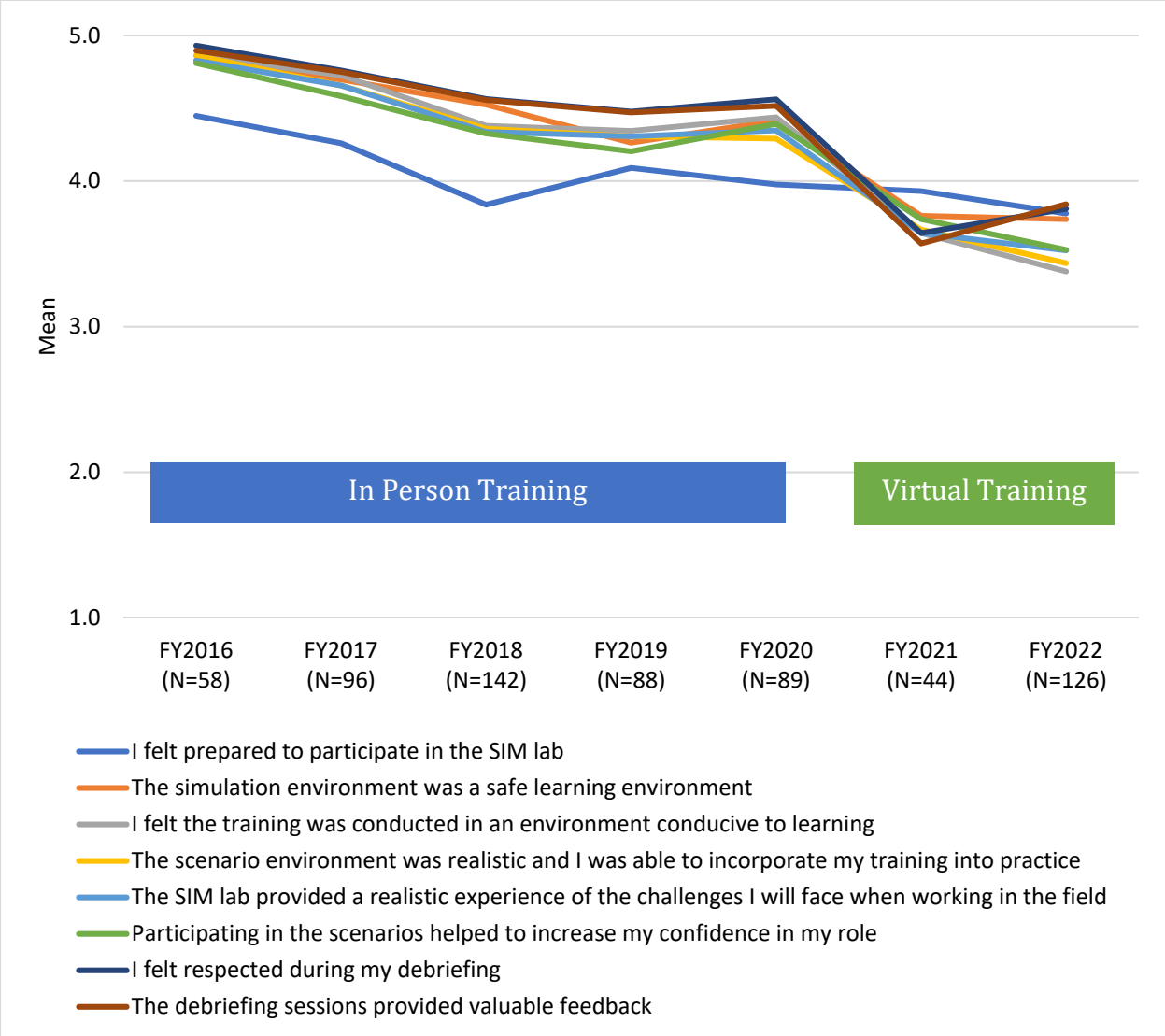

Table 5.1 provides a summary of the results of the analyses of variance. The linear trend was statistically significant ($p < .001$) across all eight questions, confirming that trainees' satisfaction ratings on every aspect of the simulation training decreased through the years. There was also a statistically significant quadratic trend for "I felt the training was conducted in an environment conducive to learning," reflecting a somewhat sharper drop on scores for that variable.

Post hoc comparison of means tests revealed a significant decrease in satisfaction after FY2017. The level of satisfaction stayed at about the same level between FY2018 through FY2020. Yet, another statistically significant decrease occurred after FY2020, and the ratings were at an all-time low between FY2021 and FY2022. Those two years did not differ significantly from each other (see Table 5.1).

Overall, the results showed three periods of time that differed significantly: 1) FY2016-FY2017: the average satisfaction ratings were close to the highest positive rating (5.0 = strongly agree with the positive statements); 2) FY2018-FY2020: the average satisfaction ratings dropped but were still above 4 (4.0 = agree with the positive statements); 3) FY2021-FY2022: the average satisfaction ratings fell below 4. To assess the effect size for the change over time, we calculated the Cohen's d between FY2016 and FY2020, FY2020 and FY2022, and FY2016 and FY2022 (Tables 5.2-5.4).

According to Cohen's (1988) rules of thumb, Cohen's d = 0.2 represents a small effect; 0.5 represents a medium effect; and 0.8 represents a large effect. Cohen (1992, p. 156)[38] has described a medium effect as "an effect likely to be visible to the naked eye of a careful observer" and a large effect as noticeably larger than a medium effect. Excluding the question of "I felt prepared to participate in the SIM lab" the results of comparison between FY2016 verse FY2020 showed that most of the effect sizes were medium to large (d = 0.7 to 0.9; Table 5.2). The comparison between FY2020 and FY2022 showed similar results (d = 0.7 to 1.0 excluding "I felt prepared to participate in the SIM lab"; Table 5.3). In the comparison of FY2016 and FY2022, the effect sizes for all questions were large (d = 1.2 to 1.5 excluding "I felt prepared to participate in the SIM lab"; Table 5.4).

Tables 5.2 through 5.4 reveal another important difference between the earlier and later years being compared in each table. The standard deviations (SDs) for all variables except "I felt prepared to participate in the SIM lab" were much larger in the later years than the earlier years. This means that people *varied* more in satisfaction in later years than in earlier years. In earlier years, almost all respondents gave high satisfaction ratings. In later years, some respondents gave high ratings, some medium ratings, and some low ratings.

[38] Cohen, J. (1992). A power primer. *Psychological Bulletin, 112*, 155-159.

**Table 5.1**

*One-way ANOVA Comparison of Simulation Training Satisfaction Rating by Fiscal Year*

| | Linear Trends | Quadratic Trends | Post Hoc Comparison of Means Test |
|---|---|---|---|
| I felt prepared to participate in the SIM lab | F(1, 634) = 18.59 *p* <.001 | F(1,634) = 1.96 *p* = .162 | 2016>2018; 2016>2022; 2017>2018; 2017>2022[a] |
| The simulation environment was a safe learning environment | F(1, 632) = 104.57 *p* <.001 | F(1,632) = 1.64 *p* = .191 | 2016>2018; 2016>2019; 2016>2020; 2016>2021; 2016>2022; 2017>2019; 2017>2020; 2017>2021; 2017>2022; 2018>2021; 2018>2022; 2019>2021; 2019>2022; 2020>2021; 2020>2022 |
| I felt the training was conducted in an environment conducive to learning | F(1, 630) = 147.35 *p* = <.001 | F(1,630) = 9.26 *p* = .002 | 2016>2018; 2016>2019; 2016>2020; 2016>2021; 2016>2022; 2017>2018; 2017>2019; 2017>2020; 2017>2021; 2017>2022; 2018>2021; 2018>2022; 2019>2021; 2019>2022; 2020>2021; 2020>2022 |
| The scenario environment was realistic and I was able to incorporate my training into practice | F(1, 634) = 117.99 *p* = <.001 | F(1,634) = 3.29 *p* = .070 | 2016>2018; 2016>2019; 2016>2020; 2016>2021; 2016>2022; 2017>2018; 2017>2020; 2017>2021; 2017>2022; 2018>2021; 2018>2022; 2019>2021; 2019>2022; 2020>2021; 2020>2022 |
| The SIM lab provided a realistic experience of the challenges I will face when working in the field | F(1, 634) = 114.49 *p* = <.001 | F(1,634) = 2.98 *p* = .085 | 2016>2018; 2016>2019; 2016>2020; 2016>2021; 2016>2022; 2017>2018; 2017>2019; 2017>2020; 2017>2021; 2017>2022; 2018>2021; 2018>2022; 2019>2021; 2019>2022; 2020>2021; 2020>2022 |
| Participating in the scenarios helped to increase my confidence in my role | F(1, 632) = 86.16 *p* = .000 | F(1,632) = 1.98 *p* = .173 | 2016>2018; 2016>2019; 2016>2020; 2016>2021; 2016>2022; 2017>2021; 2017>2022; 2018>2022; 2019>2022; 2020>2021; 2020>2022 |
| I felt respected during my debriefing | F(1, 634) = 117.06 *p* = <.001 | F(1,634) = 3.65 *p* = .056 | 2016>2018; 2016>2019; 2016>2020; 2016>2021; 2016>2022; 2017>2021; 2017>2022; 2018>2021; 2018>2022; 2019>2021; 2019>2022; 2020>2021; 2020>2022 |
| The debriefing sessions provided valuable feedback | F(1, 633) = 124.08 *p* = <.001 | F(1,633) = 3.14 *p* = .077 | 2016>2018; 2016>2019; 2016>2020; 2016>2021; 2016>2022; 2017>2021; 2017>2022; 2018>2021; 2018>2022; 2019>2021; 2019>2022; 2020>2021; 2020>2022 |

*Note.* Games-Howell Post-Hoc Comparison of Means Test except where indicated. [a] Tukey Honestly Significant Difference Test used to compare means.

**Table 5.2**

*Statistics for Change of Simulation Training of FY2016 versus FY2020*

| | FY2016 | | | FY2020 | | | Cohen's |
|---|---|---|---|---|---|---|---|
| | N | Mean | SD | N | Mean | SD | d |
| I felt prepared to participate in the SIM lab | 58 | 4.4 | 0.8 | 87 | 4.0 | 1.0 | 0.53 |
| The simulation environment was a safe learning environment | 58 | 4.8 | 0.4 | 89 | 4.4 | 0.7 | 0.75 |
| I felt the training was conducted in an environment conducive to learning | 58 | 4.9 | 0.3 | 89 | 4.4 | 0.6 | 0.82 |
| The scenario environment was realistic and I was able to incorporate my training into practice | 58 | 4.9 | 0.4 | 89 | 4.3 | 0.8 | 0.89 |
| The SIM lab provided a realistic experience of the challenges I will face when working in the field | 58 | 4.8 | 0.4 | 89 | 4.3 | 0.7 | 0.79 |
| Participating in the scenarios helped to increase my confidence in my role | 58 | 4.8 | 0.4 | 89 | 4.4 | 0.7 | 0.72 |
| I felt respected during my debriefing | 58 | 4.9 | 0.3 | 89 | 4.6 | 0.6 | 0.76 |
| The debriefing sessions provided valuable feedback | 58 | 4.9 | 0.3 | 89 | 4.5 | 0.7 | 0.72 |

**Table 5.3**

*Statistics for Change of Simulation Training of FY2020 versus FY2022*

| | FY2020 | | | FY2022 | | | Cohen's |
|---|---|---|---|---|---|---|---|
| | N | Mean | SD | N | Mean | SD | d |
| I felt prepared to participate in the SIM lab | 87 | 4.0 | 1.0 | 126 | 3.8 | 1.0 | 0.20 |
| The simulation environment was a safe learning environment | 89 | 4.4 | 0.7 | 126 | 3.7 | 1.2 | 0.68 |
| I felt the training was conducted in an environment conducive to learning | 89 | 4.4 | 0.6 | 124 | 3.4 | 1.3 | 1.03 |
| The scenario environment was realistic and I was able to incorporate my training into practice | 89 | 4.3 | 0.8 | 126 | 3.4 | 1.3 | 0.78 |
| The SIM lab provided a realistic experience of the challenges I will face when working in the field | 89 | 4.3 | 0.7 | 126 | 3.5 | 1.3 | 0.80 |
| Participating in the scenarios helped to increase my confidence in my role | 89 | 4.4 | 0.7 | 125 | 3.5 | 1.3 | 0.83 |
| I felt respected during my debriefing | 89 | 4.6 | 0.6 | 126 | 3.8 | 1.3 | 0.76 |
| The debriefing sessions provided valuable feedback | 89 | 4.5 | 0.7 | 126 | 3.8 | 1.2 | 0.71 |

**Table 5.4**

*Statistics for Change of Simulation Training of FY2016 versus FY2022*

| | FY2016 | | | FY2022 | | | Cohen's |
|---|---|---|---|---|---|---|---|
| | N | Mean | SD | N | Mean | SD | d |
| I felt prepared to participate in the SIM lab | 58 | 4.4 | 0.8 | 126 | 3.8 | 1.0 | -0.76 |
| The simulation environment was a safe learning environment | 58 | 4.8 | 0.4 | 126 | 3.7 | 1.2 | -1.20 |
| I felt the training was conducted in an environment conducive to learning | 58 | 4.9 | 0.3 | 124 | 3.4 | 1.3 | -1.55 |
| The scenario environment was realistic and I was able to incorporate my training into practice | 58 | 4.9 | 0.4 | 126 | 3.4 | 1.3 | -1.47 |
| The SIM lab provided a realistic experience of the challenges I will face when working in the field | 58 | 4.8 | 0.4 | 126 | 3.5 | 1.3 | -1.38 |
| Participating in the scenarios helped to increase my confidence in my role | 58 | 4.8 | 0.4 | 125 | 3.5 | 1.3 | -1.35 |
| I felt respected during my debriefing | 58 | 4.9 | 0.3 | 126 | 3.8 | 1.3 | -1.24 |
| The debriefing sessions provided valuable feedback | 58 | 4.9 | 0.3 | 126 | 3.8 | 1.2 | -1.24 |

## Discussion

The results indicate decreasing average satisfaction with simulation training over the years, with three distinct periods: 1) FY2016-FY2017, when average satisfaction was very high; 2) FY2018-FY2020, when average satisfaction was lower but still reasonably high; and 3) FY2021-FY2022, when average satisfaction decreased to its lowest level. Over this time period, the variability in respondents' ratings increased over the years. In earlier years, respondents were almost uniformly positive; in later years, there has been more of a mix of positive, neutral, and negative ratings.

The data analyzed in this chapter do not reveal *why* ratings have changed. A number of actions and system changes over the years may contribute to this change. These include changes in training staff; the opening of the Chicago laboratory in 2019; changes in DCFS practices and policies in hiring new investigators; and the onset of the COVID-19 pandemic, which resulted in a switch to virtual training. The post-training survey results in Chapter 4 suggest that the switch to virtual training in recent years plays a role, but is not a major explanation for recent changes in satisfaction.

The results of this chapter suggest the need for greater inquiry into changes in the simulation training program and the systems connected to it. Such inquiry could suggest methods for changing programs and systems to reverse the decline in trainee satisfaction. We discuss this more in the final chapter of this report.

## Chapter 6: Conclusion

July 2021 to June 2022 has been a fiscal year of transition for the Child Protection Training Academy (CPTA). Northern Illinois University became a partner early in FY2022, received its contract from DCFS late in the fiscal year, and is preparing to offer simulation training in FY2023. The Chicago and Springfield training laboratories began FY2022 providing simulation training virtually because of the COVID-19 pandemic but returned to live simulation training in March 2022. The biggest transition came at the end of fiscal year. The University of Illinois at Springfield (UIS), the creator of the CPTA model and the founding university for the simulation training partnership with DCFS, ended its involvement in the program. DCFS and UIS did not renew their contract for FY2023.

Program evaluation may be especially important in a time of transition. Positive results point to the value in the program that the partners can commit to holding on to. Challenges revealed by program evaluation point to needed changes that may be facilitated by the transition.

In fundamental ways, the program evaluation results for the CPTA in FY2022 are consistent with those from previous years. As in previous years, trainees completing the Daily Experience of Simulation Training (DEST) measure demonstrated significant increases in their confidence in 13 child protection skills over the course of their simulation training experience. Also, on the DEST, over 90% of trainees rated feedback from the training team members as helpful or very helpful. This was true of feedback from simulation facilitators, actors, medical professionals, and courtroom professionals alike. Many of the trainees' comments on the DEST offered positive feedback. The new analysis of DEST data focusing on meta-competence suggests that investigators in simulation training are developing cognitive and emotional capacities for their work that would be difficult to gain from classroom training. On the post-training survey, majorities of respondents agreed or strongly agreed with positive items about the simulation training program.

On the other hand, some results suggest some dissatisfaction with the simulation training, and show evidence of some trainees who had negative experiences, some of whom felt disrespected. On the DEST, about 20% of trainees gave ratings of extremely ineffective to neutral on different dimensions of the individual and group debriefings. Also, on the DEST, three trainees from one cohort commented regarding what they saw as trainer rudeness and there were a small number of other negative comments. On the post-training survey, our coding of the open-ended comments suggests that a number of respondents had negative experiences of the training, and some of them experienced negative affect that they attributed to inappropriate or unprofessional behavior by the training team. Over one-fifth of respondents to the post-training survey disagreed or strongly disagreed with positive statements about the training. Almost all the simulation training satisfaction items on the post-training showed a downward trend between FY2016 and FY2022.

These results indicate that simulation training offers considerable value to trainees overall that is worth maintaining and building on. At the same time, the negative and distressing experiences that some trainees have had and declining ratings on simulation training suggest a need for program improvement. The challenge is especially great given the substantial transition the program is undergoing: the laboratory that created the training and has six years

of experience will no longer be training DCFS investigators, while one of the remaining two laboratories has not yet provided any simulation training.

Our program evaluation results suggest that issues have arisen, but they do not tell us why. We are aware of possible factors that may play a role. The fact that training had to be delivered virtually in FY2021 and most of FY2022 is likely a factor, though this was not a major theme among many of the dissatisfied trainees. There has been substantial turnover in simulation facilitators, which both places stress on the program and means that some of those who have provided simulation training are inexperienced. We have also heard anecdotal evidence suggesting that newly hired DCFS investigators differ from new hires in the past. Reportedly, they are less likely to have prior experience in human services and may not have the same habits and values that previous new investigators have had. Anecdotes suggest that some are not as responsive or interested in simulation training as trainees in years past.

### Trainees Who Found Simulation Training Challenging

In last year's report,[39] we discussed several methods to deal with trainees who find simulation training challenging. They remain useful suggestions. Classroom trainers could attend simulation training to provide support to the trainees, who they have worked with for four weeks (classroom trainers attended in-person simulation training in the past but did not attend the virtual trainings). Items might be added to the DEST that are more attuned to trainees' emotional experience. End-of-the-day group briefings could include more time for trainees to offer feedback on their experience. A structured peer review process might be added to trainings. Trainers and supervisors could build in a regular mid-training review process. Program managers could access post-training survey data regularly throughout the fiscal year to promote a timely response to any trainings in which multiple trainees have challenging experiences. One manager told us they had done this, and it was helping to monitor training quality in the program.

### Simulation Training and Diversity

As we reported in the study of meta-competence in Chapter 3, several trainees credited simulation training with helping them identify and deal with bias in their work. This offers an excellent foundation for building capacity related to cultural diversity. As we discussed in last year's report,[40] trainees in previous years have suggested the need to focus more on cultural humility and build more diversity among the scenarios and actors used. This suggests the value of examining the potential for simulation training to contribute to cultural humility. Research on racial bias in child welfare decision-making suggests the need to deal with this issue more in training.[41] We recommend that the laboratories explore developing or modifying simulations to

[39] Cross, T.P., Chiu, L., Wang, S., Lee, L., Tran, S., & Havig, K. (2021). *FY2021 program evaluation of the Child Protection Training Academy for new DCFS investigators*. Urbana, IL: Children and Family Research Center, University of Illinois at Urbana-Champaign.

[40] Ibid.

[41] See, e.g., Dettlaff, A. J., Rivaux, S. L., Baumann, D. J., Fluke, J. D., Rycraft, J. R., & James, J. (2011). Disentangling substantiation: The influence of race, income, and risk on the substantiation decision in child welfare. *Children and Youth Services Review, 33*, 1630–1637.

address more completely issues of diversity. Leake and colleagues' work studying child welfare simulation training for cross-cultural work could inform the development of such simulations.[42]

**Future Research**

Data are needed that might help explain negative results and help with the transition that the program is undergoing. Below we recommend additional research that could be done to inform the future development of the simulation training program:

- The program evaluation team has proposed to conduct a "trainer of trainers" study to understand how facilitators are prepared to conduct simulation training and what the effects of this onboarding process has been. This study would include interviews with trainers of facilitators and both current and past facilitators who have conducted simulation training. This will help assess how well facilitators are being prepared.
- Data on investigator characteristics could be collected through the DEST and/or the post-training survey. This would enable us to examine whether trainees' experience of simulation training differs depending on their age, prior experience with child welfare, and other variables. Items could be added to the DEST that are more attuned to trainees' emotional experience, to learn more about trainees' positive and negative experiences.
- The program evaluation team could interview trainees regarding their experience of simulation training. The DEST and post-training survey could collect contact information for those trainees willing to talk to the evaluation team, and small samples of both satisfied and dissatisfied trainees could be interviewed. These interviews could help answer some of the questions we raised in last year's report about dissatisfied trainees: What signs could help identify in real time trainees having difficult experiences? What interventions can improve trainees' experience if at first it is difficult for them? What interventions could support trainees post-training if they have a challenging simulation training experience? If struggling with simulation training can be an indicator that child protection work is a poor fit to a trainee's capabilities, we need to be able to identify when that happens and what can be done either to improve that fit or minimize the impact of turnover that is likely to result.
- In previous years, our program evaluations have conducted qualitative studies of the implementation of simulation training laboratories in Springfield[43] and Chicago.[44] These

[42] Leake, R., Holt, K., Potter, C., & Ortega, D. M. (2010). Using simulation training to improve culturally responsive child welfare practice. *Journal of Public Child Welfare*, *4*(3), 325-346.

[43] Cross, T. P. & Chiu, Y. (2018). *FY2018 program evaluation of Child Protection Training Academy for new DCFS Investigators*. Urbana, IL: Children and Family Research Center, University of Illinois at Urbana-Champaign. https://www.cfrc.illinois.edu/pubs/rp_20181016_FY2018ProgramEvaluationoftheChildProtectionTrainingAcademyforNewDCFSInvestigators.pdf ; Cross, T. P., Tittle, G., & Chiu, Y. (2018). *Program Evaluation of Child Protection Training Academy for New DCFS Investigators: Initial Report*. Urbana, IL: Children and Family Research Center, University of Illinois at Urbana-Champaign. https://www.cfrc.illinois.edu/pubs/rp_20180131_ProgramEvaluationofChildProtectionTrainingAcademyforNewDCFSInvestigators:InitialReport.pdf

[44] Chiu, Y., Lee, L. & Cross, T.P. (2020). *FY2020 program evaluation of the Child Protection Training Academy for new DCFS investigators*. Urbana, IL: Children and Family Research Center, University of Illinois at Urbana-

studies were designed both to inform the development of those specific laboratories and gather knowledge on the implementation of child welfare simulation training in general. A study of the implementation of the new laboratory at Northern Illinois University could inform the development of that laboratory. It could also shed light on methods for developing simulation training following the departure of the UIS laboratory.

- The results in Chapter 3 suggest that the simulation training program for DCFS investigators has broad effects on trainee competence, including both procedural competence and metacompetence. This deserves further study. But our method of analyzing trainee comments to assess competence is limited. We recommend that the program evaluation team resume its efforts begun last year to adapt Havig and colleagues' trainee competence observational measure[45] for use with the simulation training program. Once this measure is developed, trainers and the evaluation team could use the measure to rate trainee competence. This would increase our knowledge about the impact of simulation training and help identify areas of the training that could be strengthened to enhance trainee skills in DCFS staff.

**Final Words**

The program of simulation training for DCFS child protection workers has demonstrated its value over more than half a decade. Its contribution to worker preparedness is still valuable. Program evaluation has been essential to its development and is arguably even more important now that the program is in transition and needs to deal with challenges. Supportive and transparent partnerships among all the organizations contributing to the program, and attention to program improvement based on data could inaugurate a new era in which simulation training contributes more fully and broadly to the development of competency and preparedness among a wide range of DCFS workers.

Champaign.
https://cfrc.illinois.edu/pubs/rp_20200909_FY2020ProgramEvaluationoftheChildProtectionTrainingAcademyforNewDCFSInvestigators.pdf

[45] Havig, K., Pharris, A., McLeod, D. A., Natale, A. P., & Miller-Cribbs, J. (2020). Assessing new child welfare worker competency through social simulation with standardized clients: Rubric development and pilot testing. *Journal of Public Child Welfare*, *14*(5), 531-552.

**Appendix: Daily Experience of Simulation Training (DEST) Survey**

- At which site are you taking the training? □ Chicago□ Springfield
- Before you came to simulation training:
  1. When did you complete the foundational **classroom** training? __Month;__Year (Dropdowns)
  2. How much time did you spend in on job training (OJT)? □ none □ less than 1 week □ 1-2 weeks □ 3-4 weeks □ 5-6 weeks □ 7-8 weeks □ more than 8 weeks.
  3. What tasks did you do during OJT? (check that all apply) □ read related documents, such as case files or procedures □ learned about SACWIS □ shadowed seasoned investigators □ worked on investigation reports □other, specify_____

- With (1) being lowest and (7) being highest, please check the appropriate number to indicate <u>your level of confidence</u> in the following skill areas <u>TODAY</u>.

| | (1) Low | (2) | (3) | (4) Moderate | (5) | (6) | (7) High |
|---|---|---|---|---|---|---|---|
| Gather info from collateral contacts | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Think critically on facts vs. hypotheses | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Engage families | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Assess safety | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Integrate compassion and investigative skill | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Address any concerns about family statements and behaviors | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Identify family strengths | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Explain need for safety plan and/or protective custody | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Explain DCFS role and expectations for keeping children safe | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Answer pointed questions from parents and caregivers | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Address underlying conditions such as domestic violence, substance abuse, mental health, developmental disabilities | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Testify in court | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Work as a DCFS investigator | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

- With (1) being lowest and (7) being highest, please check the appropriate number to indicate **the debriefing TODAY.**

| | (1) Extremely ineffective | (2) | (3) | (4) Somewhat effective | (5) | (6) | (7) Extremely effective |
|---|---|---|---|---|---|---|---|
| **Debriefing identified the areas in which I need to grow.** | | | | | | | |
| In-class group debriefing | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Individual debriefing | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| **Debriefing provoked in-depth discussion that led me to reflect on my skills.** | | | | | | | |
| In-class group debriefing | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Individual debriefing | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| **Debriefing allowed me to connect with class materials and their practical application**. | | | | | | | |
| In-class group debriefing | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Individual debriefing | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

- Please answer the following questions regarding the feedback that you received in **today's training**:

| | very unhelpful | unhelpful | helpful | very helpful | N/A |
|---|---|---|---|---|---|
| I found the simulation facilitator's feedback to be… | ○ | ○ | ○ | ○ | ○ |
| I found the feedback of "family members" in general | ○ | ○ | ○ | ○ | ○ |
| I found the feedback of "medical professionals" in general | ○ | ○ | ○ | ○ | ○ |
| I found the feedback of "courtroom professionals" in general | ○ | ○ | ○ | ○ | ○ |

**Today's reflective log:**

- What was the most helpful feedback that you learned from your individual debriefing? And why?
- What were the most meaningful concepts or skills you learned from your classroom/foundation training so far? / What were the most meaningful concepts or skills you learned today?