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Social work students' reflection about conducting child welfare assessment in a guided case-based learning environment

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ABSTRACT

To teach about child welfare assessments, social work educators frequently draw on the use of authentic or fictitious cases from social work practice. Such cases provide the opportunity of bridging the theory-practice gap. However, they can be overwhelming given the vast amount of information presented. Additional support is warranted when teaching with cases. In this article, we investigate how students reflect about their learning experience conducting child welfare assessment in a guided case-based learning (GCBL) environment. A qualitative content analysis of written responses of $N = 70$ social work students from five different universities in Bavaria (Germany) examined implicit and explicit meanings of elements of the learning environment that students paid attention to, what elements they perceived as helpful or hindering, and what factors they attributed difficulty to. Results revealed that the GCBL environment was well received. Features integrated into the GCBL environment helped students to focus on important steps of an assessment. Nonetheless, some students perceived breaking down the exercise into smaller elements as an interference of their problem-solving process. We argue that the potential of GCBL can be improved by paying attention to instruction clarity and by incorporating possibilities of interaction and feedback.

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Problem statement

When social workers assess child welfare cases, information is often uncertain and incomplete (Killick & Taylor, 2020). Yet, social workers need to learn how to engage with such information critically in order to make important decisions that might affect children and families. As Effinger (2021) points out, social work educators should provide opportunities for students to develop their ability to handle uncertainty. Given the complexity, fostering reflection (i.e. the ability to think consciously and systematically about decisions made, on which grounds they are made, and what consequences they

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have) is crucial (Egonsdotter et al., 2020). To facilitate such reflection, it is possible to use authentic

cases to engage students with scenarios likely to be encountered in practice (Austin & Packard, 2009; Egonsdotter & Bengtsson, 2022). Research also suggests that practice skills can be fostered effectively with digital means (Cummings et al., 2019). However, digital learning environments can be demanding for students. It is important to introduce structure into digital learning environments so that students can acquire skills without being overwhelmed with too much complexity. Such structure can be realized by incorporating computer-supported scripts (CSS) into digital learning environments. CSS provide learners with guidance on when, how, and in what order to perform certain tasks (Kollar et al., 2006). As an example, a script can be used to sequence the activities of an assessment in a Case-Based Learning (CBL) environment and help them reflect about their learning process.

In light of this, most research on CSS is outside of social work. Understanding how CSS can be incorporated into digitally supported CBL for prospective social workers' education does not only require examining how this can be achieved effectively (Opio-Göres et al., 2024) but also engaging with how learners perceive this learning experience (perceptions on the topic being taught, features integrated into the learning platforms and other factors that seem to influence their learning process). In order to gain a deeper understanding of the latter, this article presents a qualitative content analysis examining how prospective social workers perceive learning in a digitally supported CBL environment.

Conducting child welfare assessment in social work

Uncertainty of information, ambiguous definitions, and the dynamic nature of risk make child welfare assessments complicated (Gambrill & Shlonsky, 2000; Killick & Taylor, 2020). In most instances, social workers may never have all the detail they need to arrive at professional decision, and may never know for sure whether the information they have is accurate during assessment (Killick & Taylor, 2020). Given the consequences that come with erroneous decisions (Munro, 1996), assessments must be 'focused, factual, and explicit' (Parker, 2020, p. 20). Entrusted with the responsibility of making significant decisions that impact clients' lives based on incomplete and complex information, social workers need to take uncertainty and subjectivity into account (Killick & Taylor, 2020). The overall goal is to gain a deeper understanding of the client's world despite the aforementioned hindrances.

According to Holland (2010), paying attention to the experiences and narratives of children and families is important. Assessment transcends the act of gathering information. Rather than viewing the collected data as 'face value', critical engagement with this information is crucial in order to build a comprehensive picture of the people at the center of the social work process (Killick & Taylor, 2020). Integrating expert knowledge and applying a theoretical approach are equally significant when dealing with issues like mental health, domestic violence, or substance abuse (Holland, 2010).

Knowledge frameworks usually identify specific domains and sub-elements of what has to be taken into account during assessment (Killick & Taylor, 2020) and related theories help social workers make informed opinions (J. Milner et al., 2020). In German-speaking social work, one such framework is Obrecht's (2007) 'general normative action

theory' which structures the process of data collection, helps making predictions, explaining problems, and supports the choice of interventions that are legitimate and ethically appropriate (Spensberger, 2019). Obrecht's action theory is a fundamental element of the Swiss School of Social Work's systemic paradigm, an overarching framework under which different theoretical models are integrated (Obrecht, 2005; Staub-Bernasconi, 2018).

According to Obrecht (2007), professional problem solving is rational, structured and theory-driven. The general normative action theory includes the steps: (1) describing the situation (Who is involved? What has happened?), (2) reconstructing the case history (What happened in the past and how has it contributed to the current situation?), (3) examining the context of risk (Is there a need for immediate action? What is likely to happen without action?), (4) defining the problem (What are social norms and how does the current situation deviate from them? What would be ethical?), (5) examining goals of possible intervention (How and what needs to be done and with which resources?), (6) making a decision (What might be a suitable intervention and what might it achieve?) and (7) evaluation. As such, these steps are not linear but rather iterative (Staub-Bernasconi, 2018).

While such frameworks may not guarantee success of social work interventions, they hold the potential of enhancing the social work process by drawing attention to issues that matter most, showing how information can be organized and interpreted based on all of which reasonable judgments can be made (Killick & Taylor, 2020, p. 37). Yet, according to Crisp et al. (2003), tools and frameworks for assessment might offer orientation for teaching and practice but come with the danger of limiting transferability. A framework may trigger a type of trained incapacity in which acquired skills and knowledge acquired in one setting cannot easily be transferred to another (Whittington, 2007).

While there are varying opinions about how assessment should be taught in social work programs, it is widely acknowledged that students should have the opportunity to apply their theoretical knowledge in practice (Crisp et al., 2003; Whittington, 2007). Also, enhancing learners' ability to think more systematically and consciously about their decisions is crucial (Egonsdotter & Bengtsson, 2022). In contrast to professionals, students' reflection rarely relates to real-life social work experiences. Therefore, introducing authentic cases into social work education may help them gain first-hand understanding of how to apply such knowledge frameworks during assessment. The case-based learning approach developed by Kolodner (1992) can be used to design and implement such cases.

Case-based learning (CBL) as an approach for teaching assessment in social work

CBL is an example of the so-called constructivist educational approaches. In these, cognitive and socio-cultural theories are used to design classroom practices to elicit students' participation in processes such as evaluating pertinent information for problem solving, or conducting a realistic analysis or inquiry (Kolodner et al., 1996). CBL builds on Kolodner's Case-Based Reasoning (CBR) cognitive model which explains problem-solving based on previous experiences (solutions;

J. Kolodner, 2014). Incorporating these principles into the development of learning environments, it was found that making references to past experiences while solving problems was an effective approach to understanding reasoning processes in ill-structured disciplines (Kolodner et al., 1996.) like child welfare assessments. Learning is thus alleviated when it is situated in authentic experiences, as these provide ‘richer and therefore more memorable and accessible representations’ (Kolodner et al., 2005). In CBL, cases simulate real-world problems (M. Milner & Wolfer, 2014) which provide students with the opportunity of building on their existing knowledge in identifying multiple alternative solutions to those problems (Austin & Packard, 2009). As an educational approach which emphasizes the use of authentic cases to prepare students for practice, CBL provide learners with the opportunity of connecting theory to practice (Bauer et al., 2022; Fischer et al., 2022).

When using cases in social work education, it is possible to enact experiences that are typical for professional practice like dilemmas, emotions, misinterpretations and motivation of involved actors (Dowd & Davidhizar, 1999). Indeed, Whittington (2007) underlines that CBL is one of the prominent approaches used to teach about social work assessments. Egonsdotter et al. (2020) emphasize that cases used to teach about child welfare assessments need to provide high degrees of ‘formal’ and ‘substantial authenticity’. They ought to mirror child protection methods in the respective countries and should realistically describe the social situations of the involved actors involved like children and parents. Crucial to this, is designing child welfare cases that reflect the uncertainty, inconsistency and contradictions typical to the field. Using cases with different contexts can increase students’ exposure to a variety of real-world scenarios (Bauer et al., 2022; Fischer et al., 2022). Complete scenarios or partial elements can be represented with different kinds of digital media, such as, texts, audios or videos (Fischer et al., 2022), and indeed CBL has often been implemented by aid of computer-based technology.

In social work education, Egonsdotter and Bengtsson (2022) found that assessing child protection cases in a computer-based simulation called ‘SimChild’ fostered reflection and understanding of social problems from multiple perspectives. In this study, students had the opportunity to assume the role of a practitioner working on cases in which the background knowledge (e.g. the family’s ethnicity or the socio-economic status) had been

manipulated. Manager and Knowles (2007) also investigated students’ perspectives on learning with either multimedia or text-based cases. In this study, five short videos clips recorded with professional actors were presented in a windows media format as a series. They showed the perspectives of different actors in a child welfare case. Results indicated that students in the multimedia case study conditions felt their learning was enhanced more than their counterparts in the text-based case study settings.

Opio-Göres et al. (2024) provided quantitative evidence that digital CBL in social work is a promising way of equipping students with knowledge crucial for the assessment of child welfare cases. Similarly, evidence from other fields like medical education showed that using case-based worked example was effective in fostering the acquisition of diagnostic knowledge (Kopp et al., 2008).

Offering guidance to make CBL effective

Despite its theoretical benefits, learning with cases can be overwhelming for students. Additional support in CBL is necessary (Kolodner et al., 1996). In light of this, research has explored ways of enhancing CBL with scaffolds to facilitate high-quality engagement. Reiser and Tabak (2014) point out that scaffolding makes the learning process manageable by simplifying elements of a task into digestible bits and by directing focus on elements that need to be considered closely. One way of providing structure in digital-based CBL environment is through the integration of computer-supported scripts (CSS; see Spensberger et al., 2022). CSS are scaffolds, which offer students guidance regarding when, how, and in what sequence to perform particular tasks (Kollar et al., 2006). In the case of child welfare assessment, the process can be broken down into different components like 1) describing the situation (Who is involved? What has happened?), (2) reconstructing the case history (What happened in the past and how has it contributed to the current situation?), (3) examining the context of risk (Is there a need for immediate action? etc.). By pointing students' attention to these tasks, instructors can guide them through these different stages.

Empirical evidence supports the effectiveness of CSS. Vogel et al. (2017) show in a meta-analysis that such scaffolds foster the acquisition of domain-specific knowledge and collaboration skills. Benefits of using CSS have also been examined in social work education. Spensberger et al. (2022) conducted an experimental study with a 2×2 factorial design to investigate the effects of different scaffolds (worked examples/no worked examples) and CSS (with/without) on social work students' fallacy recognition skills in a CBL environment. The results indicated that students could improve their skills over time. Both scaffolds improved skill acquisition, at least when they were presented individually (and not simultaneously).

Another way of offering guidance in a CBL environment could be with help of metacognitive prompts. Incorporated into a learning environment, these are scaffolds that stimulate and support students' cognitive, metacognitive, motivational, and collaboration skills by asking them to perform certain metacognitive actions such as planning, monitoring, and reflecting on their learning process (Bannert, 2006; Bannert & Reimann, 2012). The usefulness of metacognitive prompts has been demonstrated by Davis (2003), who examined if scaffolding was necessary to assist students learn how to "reflect productively" which could lead to knowledge integration (expand, distinguish, and connect ideas as well as recognize weaknesses in one's knowledge). According to this study, students who were asked to 'stop and think' without being directed about what to focus on (generic reflection) developed a more coherent understanding of science compared to counterparts who received directions. Davis (2003) findings show that the type of metacognitive prompts mattered.

When it comes to support in digital-based environments, research shows that offering too much guidance ('overscripting'; Dillenbourg, 2002) might limit students' self-regulation and active engagement, which might affect learning motivation negatively (Rummel et al., 2009). According to Renninger and Hidi (2019), motivation refers to both engagement and interest alongside others. Interest is the meaningful, long-term engagement with content, people's psychological state during engagement, and the

likelihood of continuing to do so. It is therefore a central factor in academic situations (Harackiewicz et al., 2016).

In response to detailed scripts possibly having a negative effect on learning, research has addressed ways of making scripts ‘flexible’ (Dillenbourg & Tchounikine, 2007) suggesting adaptability as one possible way of doing so. With adaptable scripts, students are entrusted with the task of making adjustments to the script to cater for their own perceived learning needs (Plass & Pawar, 2020). These types of CSS can improve students’ self-regulation skills and engagement in the learning process (Vogel et al., 2022). Most research on offering guidance and structure in guided CBL environments is, however, outside of social work. In addition, little is known about how students perceive learning in such settings.

Study context

We created a digital CBL environment and guided students through the assessment of child welfare case vignettes (see example in [Appendix](#)) with different kinds of scaffolds. For comparability, we also included a

baseline condition that received no support. In the guided group, the type of computer support scripts (adaptable vs. strict scripts) and the type of metacognitive reflection prompts (generic vs. specific) was varied. In all settings, a voice-over presentation showing how the ‘general normative action theory’ can be used to guide the assessment process was

integrated. Additionally, a summary of the German child protection law book (known as the SGB VIII) was also incorporated.

According to quantitative analyses we report elsewhere (Opio-Göres et al., 2024), students in the four scaffolded CBL conditions acquired a higher level of conceptual knowledge in the posttest than counterparts in the unguided baseline condition. Yet, even though adding scaffolds to the CBL environment worked, the study by Opio-Göres et al. (2024) does not reveal much about how students experienced their learning processes, and what design elements they found to be helpful or hindering. In line with this, the empirical study described in the following is based on a qualitative content analysis of students’ responses during a reflection task they were presented with half-way through studying in the learning environment. Precisely, following research questions were raised: How do students describe their experience of conducting child welfare assessments in the GCBL environment? What elements do they pay attention to, and which factors do they find to be helpful or hindering?

Method

Sampling and data collection

The sample was diversified by collecting data from five different Universities of Applied Sciences in Bavaria, Germany. Responses of $N = 70$ (82.9% female, $M_{\text{Age}} = 26.84$, $SD_{\text{Age}} = 7.091$) are evaluated in this study. Participants were all undergraduate students of social work in their final year. The standard length of a Bachelor of social work degree in

Germany I between 6 and 7 semesters. Typically, introductory courses take place in the first semesters.

Students have a mandatory internship in the middle and specialize for the work with specific target groups in their final year (an overview of the core curriculum of the social work education programs can be found at <https://www.dgsa.de/veroeffentlichungen/kerncurriculum-soziale-arbeit/>). Much as individual universities are responsible for the content of their respective curriculum, students in the final year of the bachelor's degree were expected to have had classes on child welfare laws and protection. In this study, ethical principles of the Deutsche Gesellschaft für Soziale Arbeit (DGSA), a scientific organization of social work in Germany were adhered to. Amongst others, all criteria, all participants signed a consent form explaining data collection, use, publication possibilities, and data security.

Measures

Depending on the nature of metacognitive reflection prompts provided, participants received two questions: 'What was hard for you to do during the last assessment?' and 'What was easy for you to do during the last assessment?' Others were prompted to write about the phase openly with the following instruction: please reflect about your assessment process in the space below. With no differences observed between groups, we refrained from making comparisons and instead included students' reflections from both conditions in the analysis.

Qualitative content analysis and ensuring methodological rigor

Students' responses were analyzed by aid of qualitative content analysis (Kuckartz, 2019) following a six-step process: 1) preparing data, 2) creating main categories, 3) coding data according to these main categories, 4) compiling text passages of the main categories and developing further subcategories, 5) conducting a category-based analysis, and 6) presenting results (Kuckartz, 2019). Presented as a linear process, the steps are conducted in an iterative and reflective way. This involved moving back and forth between the raised questions, data and identified categories. Adjustments were continuously made alongside fine-grained analysis and interpretation.

In qualitative research, the criteria of validity, reliability and objectivity are perceived differently as compared to quantitative research. According to Schreier (2014), validity is used in a comprehensive way (in qualitative research), referring to the design of the entire study, the solidity of findings, and the conclusions drawn. Also, the quantitative perception of objectivity cannot be applied to qualitative research because meaning is conceptual and interpretation subjective (ibid.). Schreier (2014) points out that the concept of reliability is approached from different angles. While some researchers argue for an approach in which consistency of the instruments that are used is achieved by using different coders (Silverman, 2001), others argue that working transparently and systematically through the data makes qualitative research reliable (Steinke, 2004). Przyborski and Wohlrab-Sahr (2014) overarchingly emphasize that without putting the emphasis on differences between research traditions, the decisive question in qualitative research should be on ways

of achieving explicit quality criteria based on the reliability of data collection, the representativeness of the data selection, and the validity of generalized statements.

To address reliability, we created a preliminary ‘coding frame’ (Schreier, 2014) in which coding units were defined as single sentences. A coding rule was established to proceed line by line. The manual and interpretations were presented to an expert circle for feedback. To ensure consistency and reliability of the data analysis, time was left between the analysis sessions. Also, journaling was used to track changes in interpretations over time.

Typically, categories consist of a single word or two-to-four word combinations (Rädiker & Kuckartz, 2020) used for abstracting, indexing, reducing, and providing meaning to data (Kelle & Kluge, 2010). In this article, we use *thematic* categories to describe key topics and *analytical* categories to describe the results of a critical engagement with the thematic codes. We also chose to use the terms *data-driven* categories and *concept-drive* categories instead of deductive and inductive categories for preciseness.

Data preparation

We conducted the analysis using the MaxQDA program. Prior to coding, we familiarized ourselves with the data comprehensively, reading through all responses repeatedly. We generated ‘concept-driven categories’ based on our study design and research questions.

Theories of learning and scaffolding in digital environments were crucial and informed this process. The ‘data-driven categories’, i.e. students’ responses, were used to underline and strengthen the ‘concept-driven categories’, and this process happened simultaneously at times. Constant adjustments (disintegrating and coming up with different categories) were made. Below, we present the main categories, subcategories and examples of statements

Defining the main thematic categories and subcategories

Perceptions of assessing child welfare cases

Under this main category, we examined students’ responses to assessing child welfare cases. The subcategories we identified were (1) complexity, (2) connection, and (3) systems thinking. With the first subcategory (complexity), we looked at elements/aspects that students identified as difficult and what they attributed these difficulties to. An example of such a statement was: *‘Due to the lack of practical experience, I am not certain whether intervention I suggest would work or whether there would be better options’*. With the second subcategory (connection), we looked at students’ remarks on connecting the assessment exercise to previous experiences outside the GCBL environment. An example statement here was: *‘This is a classic situation at the youth welfare office. It is difficult to determine what rights or claims the grandfather has as a reporting person . . .’*. The third subcategory (system thinking) was used to categorize remarks indicating that students could think and act systematically during the assessment process. An example of such a statement was: *‘The more one goes through the questions, the more one focuses deeper on the parts, and how they connect to each other. Having a guiding system is good for gaining an overall impression and for keeping different elements in mind’*.

Features of the GCBL environment

Students' responses to elements integrated into the GCBL environment were examined under this main category. We included three subcategories: (1) scaffolding, (2) intervention, and (3) case vignettes. With the first subcategory (scaffolding), students' opinions on the CSS and its guiding questions and hints used to break down the assessment process into stages were analyzed. An example of a coded segment here was: *'I was able to analyze the case easier and to make detailed recommendations for intervention with the help of the guide questions'*.

Under the second subcategory (intervention), students' remarks on the voice-over presentation were examined. An example statement here was: *'... It was easier to proceed in this case because of the previous video, as the guiding questions provided a visual guide'*.

Last but not least, we used the subcategory 'case vignettes' to engage with students' responses on the information provided in the cases and the format in which it was presented. An example statement here was: *'It was somewhat difficult to propose a more detailed plan of action since there was not enough background information provided ...'*

Working conditions

In the main category 'working conditions', we analyzed students' responses to the circumstances under which the assessment exercise in the GCBL environment was conducted. One subcategory we identified here was the timeframe with an example statement being: *'Since these are cases that require a lot of time, the current timeframe seems tight'*. Another subcategory was technical know-how having perceived this as crucial for navigating the learning environment with confidence. An example statement for this was: *'I unfortunately pressed the submit button before my analysis was complete'*. It is however worth mentioning that this subcode did not have much prominence in our findings.

Motivation and interest

With this main category, we examined students' remarks on motivation and interest as factors that seemed to play a role while working in the GCBL environment. Examples for such statements were: *'My interest in the area of child welfare is not strong so I am currently not so motivated'* and *'Taking a closer look at the case and assuming the role of a social worker was interesting'*. It is worth mentioning that participants' utterances were translated from the original language (German) into English by the first author. Attention was paid to preserving the essence of the original statements.

Results

Reflection on child and welfare assessment

One analytical category that emerged in the data was students' acknowledgment of the complexity in conducting child welfare assessments. Representatively, this participant wrote: *'It is very demanding to work on such a case. One realizes that there is a lot that needs to be remembered and paid attention to. Identifying what is essential for the family is crucial at the same time'* (SA_An_02). Another student stated that *'it was not easy*

engaging with all levels of the problems presented in the vignette and the possible solutions. One needs to think carefully and comprehensively' (st_MA_01).

Also of interest was that students attributed the difficulty encountered during the assessment exercise to a variety of factors, including limited or lack of experience when tasked with conducting child welfare assessments. This participant (CH_HA_20) for instance wrote: *'As I am not familiar with the procedure in the event of child abuse, I had no way of knowing if they had been addressed'*. Another student (GA_MI_22) wrote: *'It was difficult for me to evaluate the information and to come up with a clear problem definition, being concerned that I might misinterpret the case vignette'*. Being in the final stages of their graduate studies, some students argued that they had taken specialization courses in different areas and not in the field of child protection. They argued that it was complicated for them to recall the procedures of child welfare assessment.

Despite the students' acknowledgment, that conducting child and welfare assessments is complex, data indicated that a significant sample of the participants understood the importance of sticking to the context of the case vignettes and of utilizing a systems approach to engage with the given information. One student (SA_AN_08) for instance wrote: *'The first steps (describing the situation and identifying the problems) were much easier for me. You work with the information you get, put forward hypotheses for possible reasons for the situation and behavior, and think about possible consequences'*. Another student (RI_MA_27) explained that *'some things I had answered earlier became clear to me through other questions, which is the reason I kept moving back and forth'*. This suggests that the students understood that assessment is not linear calling for constant reviews of decisions made.

Also of interest was that assessing cases in the learning environment seemed to have triggered students' critical engagement in a broader context. BA_KU_22 for example wrote: *'By using this (systems) approach to conduct assessment, there is a lot of focus on the individual, which may make the impression that they (individuals) are the cause of the problem. Of course, changes can be achieved more quickly at the micro level (family system) than at the macro level (society, laws, etc.). Nevertheless, such an individualized view should not give the impression that the person is to blame for the problems'*. A follow-up on this student's pattern of thinking beyond the assessment exercise would have provided deeper insights on this.

Reflection on features of the GCBL environment

On instructional guidance (scaffolding)

As much as conducting assessment in the GCBL was new to the students, data revealed that instructional guidance that was integrated in the learning environment was well received, but also critiqued by the participants. Regarding the former, one student (NA_NA_NA) for example wrote: *'The guiding questions helped to keep different aspects of the assessment in mind'*. Another participant (MA_FR_20) reported: *'It was helpful to have a well-structured framework for (conducting) assessment'*. Taking into consideration that the first assessment (in the pretest) was conducted without support, the difference that the instructional scaffolds made could be further seen in this student's response: *'In comparison to the first case vignette, I was able to assess this case well and in detail with the help of the questions and the provided suggestions'* (MA_MI_10).

From a different angle however, responses revealed that in some cases, providing detailed instruction seemed to interfere with students' problem-solving processes, as BÄ_BE_04 representatively wrote: *'I wish I had had enough freedom to conduct a comprehensive analysis of the problem definition'*. In a similar way, breaking down the assessment process into smaller steps was not perceived as beneficial by some learners and might have oversimplified the assessment task. One student, for instance, stated: *'Some of the guiding questions seemed redundant to me'* (MO_TE_30). Interestingly, at a later stage of the assessment exercise, some students expressed that it had become increasingly difficult to distinguish between the scaffolded steps. Along these lines, AN_HE_15 for example wrote: *'It was sometimes challenging for me to give different answers for the different steps [. . .]. It became increasingly difficult to concentrate'*.

Given the complexity of assessing child welfare case vignettes and the cognitive

load associated with working in new learning environments, conducting the entire training in one block might have contributed to the observed. Designing instruction that addresses individual learners' needs while paying attention to what knowledge they bring along is crucial, but observably challenging to achieve.

On the case vignettes

Regarding the presentation of the case vignettes, evidence suggested that having clear and precise information was appreciated. For example, EL_AL_29 wrote: *'The case vignettes were described in detail which made them relatable'*. Interestingly, while some students described the provided information as detailed enough, a significant number of them found the uncertainty and missing information challenging. These students for instance expressed the need for additional details or difficulty working with the available information: *'It's challenging to work on a case with little information'*, (BA_HE_26) and *'It was difficult to suggest a suitable intervention. In 6 months, a lot can happen. . . I would have liked to know where the family is right now and what their situation is . . .'* (IN_GU_10). While the response of the first student representatively alludes to the first phenomenon (provided information being insufficient), the second response is in line with the latter (need for more information). Both patterns were prominently observed across the data.

In a similar manner, it was observed that students tended to have a hard time evaluating the information presented in the case vignettes. As much as working with multiple family members is typical in child welfare assessments, integrating different players seemed to have introduced a certain level of difficulty that was not anticipated, particularly when determining who was to be focused on as a client. In the case of grandfather reporting in concern about a contact to a missing grandchild and the mum, KA_KL_13 for instance wrote: *'I wasn't sure whether to name the grandfather as the client (since he was seeking help) or Lina as the child at risk.'* Another one (SA_AN_08) wrote: *'It wasn't clear to me whether the client was Mr. Bauer or the young family (Lina, Susanne, Tony). Suggesting a suitable intervention in this case was even more challenging'*.

Also, students' responses revealed that presenting the case vignettes as single documents in the GCBL environment made it difficult to suggest interventions without interacting with the clients directly. ZE_RO_08 argued that: *'In a personal conversation, Ms. M.'s situation would have become more understandable. Assessment (in this form) was hypothetical. One needs to have had a conversation with Samara (the daughter) in order to understand her perception of the situation'*. For this student, the format in which THE

information was presented was abstract and seemed to have a negative influence on their perception engaging with the case vignettes.

On the voice-over presentation

Students' feedback on the voice-over presentation integrated into the GCBL appeared to be divided. While some students argued that this feature was helpful to have like DZ_HO_27 writing: *'The task was challenging, but I relied on my gut feeling and the PowerPoint presentation as a guide'*, others like mo_te_3 argued that *'the presentation [...] was too fast and barely had an impact on my assessments'*.

Motivation and interest and their influence on learning in the GCBL environment

Even with the complexity attributed to the task of conducting assessments in the GCBL environment, thematic evidence suggested that students found the exercise to be of value and stimulating. BÄ_BE_04 who had mentioned that time was a limiting factor additionally wrote the following: *'Despite that, it was an interesting experience engaging with the case vignettes'*. According to MO_BE_8, *'having the opportunity to reflect on the case vignettes and to find solutions from a social worker's perspective was interesting'*. As much as learning in a GCBL environment was a new experience, it can be argued that some students attributed particular value to this kind of learning.

On a different note, students' responses showed that their motivation to conduct assessment in the GCBL environment had changed over time with the given working conditions. CA_AL_15 wrote: *'Initially, I was very motivated and worked diligently on the case vignettes. Nevertheless, my motivation faded with time as the exercise took longer. At some point, it seemed like I was repeating the same replies'*. AN_JO_21 also wrote that *"my motivation to solve the case [had] been negatively affected by the open questions in the case vignette."*

Discussion

As demonstrated by the previous studies, GCBL is a promising approach to teach about child welfare assessments in social work. Nevertheless, little is known about how students actually experience working in such learning environments. This study aimed at arriving at an in-depth understanding of what elements social work students perceive as helpful or hindering and those that they generally paid attention to during the assessment process. We conclusively state that:

When it came to the actual assessment of child welfare cases, we observed that students understood the need of taking a systems approach and the role of context. Nonetheless, dealing with missing and uncertain information seemed to be an element that participants had challenges with much as this is often the case in the field of child welfare and protection (Killick & Taylor, 2020). Indeed, and according to Effinger (2021), the ability to embrace uncertainty is a core competence in social work. Furthermore, using child welfare case vignettes with varying severity, alternating settings and background information of actors can be a way of increasing students' exposure to a variety of scenarios likely to be encountered in practice (Bauer et al., 2022; Fischer et al., 2022). In line with Egonsdotter et al. (2020), we agree that cases used to teach about child welfare

assessments need to be designed in a substantially authentic manner, mirroring all inconsistencies and uncertainties inherent to the field.

Also, with the study indicating that students struggled with complexity, missing and uncertain information, it can be argued that providing room for feedback in the GCBL environment might be beneficial. Feedback in CBL allows for reassessment of one's problem-solving approach (Kolodner et al., 1996). Integrating this element in the GCBL environment could have helped students share, learn from one another's experience and to raise questions. Peer feedback is said to even be more effective when scaffolded (Gielen & De Wever, 2015; Hovardas et al., 2014) and this can easily be implemented in GCBL environments. With the recent developments in generative AI, also systems like GPT-4 might get into reach to provide high-quality feedback to students' child welfare assessments (Kasneci et al., 2023). Generative AI feedback and peer feedback might even be combined in that sense (Bauer et al., 2023).

When it comes to the features of the GCBL environment, having clear instruction and detailed information was perceived as helpful. The scaffolding questions and hints offered students orientation and pointed them to different aspects that needed to be addressed. However, the concern that detailed guidance may interfere with the problem-solving process as well as students' autonomy (Dillenbourg, 2002) is something which became evident in our findings. It would be of interest to know if students' perceptions were based on the fact that they already knew enough about the assessment steps, rendering the support redundant, or if they perceived the instruction as an interference in their problem-solving, causing them to lose motivation for learning. According to Kalyuga (2007), learners with high expertise may find it counterproductive to learn previously learned information, while those with low expertise may benefit from it. It could but also be the case that this type of instruction introduced cognitive overload memorizing the script during problem solving (Dillenbourg & Tchounikine, 2007). Clearly, striving for ways of offering optimal guidance has been underlined in the literature (Fischer et al., 2013), but is observably hard to achieve.

It was observed that students overwhelmingly attributed encountered difficulty assessing child welfare cases in the GCBL environment to limited experience in this area and curriculum. With educators being encouraged to support students to gain confidence in their skills for practice (Fengler & Taylor, 2019), we can reiterate that social work classes need to integrate practical elements regardless of the content being taught. In preparing students to work with families and children for instance, practice opportunities do not only have to be limited to specific courses taught in this area. They can be integrated in other classes as well. We perceive child welfare to be a crosscutting topic in the field of social work. Students ought to be supported in their acquisition of knowledge and confidence to act accordingly in cases of perceived harm.

Last but not least, even though working in a GCBL environment was probably new to the participants, it can be argued that it was well received based on the number of participants analyzed for this study. Therefore, in general, we can recommend GCBL environments to be integrated in social work curricula.

Limitations

Of course, this study comes with limitations. First, the focus on the field of child welfare make it difficult to arrive at generalized conclusions regarding students' perceptions of GCBL. It would be of interest to know whether our results can be observed in other areas of social work under the same or at least similar study conditions. Second, since we used a convenience sample which included social work students from five universities, the results may not be representative of the population. Third, even though the case vignettes we used in this study were developed with great care, we do acknowledge critique that case vignettes typically reduce complexity (Gautschi, 2021). Thus, it would be interesting for future research to look at the optimal level of complexity of cases for social work students. Last, we looked at students' written reflection and did not have opportunities for a follow-up, for example via interviews with the participants. It is not unlikely that the possibility to interact would have helped us to engage deeper with students' perceptions of working in a GCBL environment.

Implications

Similar to other helping professions, the daily practice in social work revolves around complex cases whose successful execution and completion reconcile professional accountability (Longhofer et al., 2017). GCBL is a suitable way of helping students learn about the assessment of child welfare cases (Opio-Göres et al., 2024). Features integrated into such environments can help reduce complexity. GCBL environments provide students with a safe space to learn with authentic cases and the possibility of putting the knowledge acquired theoretically into practice. Also using a variety of cases can help students gain confidence dealing with the uncertainty of information, which is quite common in child welfare assessments. This study revealed that students were open to learning in a GCBL setting, as much as this was probably a new experience. Nonetheless, there are certain elements that need to be paid attention to when designing such learning environments amongst which the clarity of instruction is one. Similarly, providing opportunities for feedback and interaction have the potential of making students' learning processes effective.

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Appendix. Example of case vignette

The social worker A meets with Mr. Bauer, the grandfather of Lina (3 years old). The gentleman appears quite upset and worried, having not seen his daughter and grandchild for 6 months. He reports visiting their home several times. Having met no one, he approached the neighbors, who claimed they had not seen the family for a while.

Additionally, Mr. Bauer shares the following information: Susanne (the daughter) had been living with them when she became suddenly pregnant. She was in her final year at college and her partner Tony was not yet done with school either, so the parents offered

Susanne to stay with them. Tony completed his electrician training shortly before Lina was born. The young family moved out, but the grandparents remained Lina's primary caretakers for the first two years. Subsequently Lina started staying with her parents, but Tony lost his job shortly after. Susanne confided in her parents that Tony had started abusing alcohol and acted violently towards her and her daughter. With Susanne's visits becoming less and eventually stopping, her parents became worried and sought for talk. The situation escalated and Susanne cut off communication. Mr. Bauer is seeking help not knowing how to proceed.