


## Article

# Enhancing Cultural Empathy in International Social Work Education through Virtual Reality

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**Abstract:** School-based bullying is a major global social problem affecting societies around the world. It is argued that Virtual Reality (VR) offers benefits and possibilities in social work education. Within this context, a study was carried out with the aim of analysing students' experiences with a school-based bullying scenario through Head-Mounted Display Virtual Reality (HMD VR), and exploring the pedagogical potential of this technology to support the enhancement of cultural empathy in international social work education. Using cultural competence and social constructivist perspectives focused on empathy theory, this article addresses the following research questions: How do the research participants describe experiencing the bullying scene with HMD VR? How do the research participants account for their HMD VR experiences in connection with empathy? How can the pedagogical use of HMD VR enhance international social work students' cultural empathic skills? Data for the study were gathered through four Focus Group Discussions (FGDs) with 38 volunteer research participants based on their postexposure to a scenario on school-based bullying through HMD VR. ATLAS.ti v.23 software (Atlas.ti, Berlin, Germany) was used to undertake a deductive thematic analysis. The findings reveal that HMD VR plays an important role in enhancing different dimensions of empathy, which is an essential element in transformative learning in social work education. The overall implications of using HMD VR in international social work education for enhancing cultural empathy are discussed. The article concludes that HMD VR has a promising role; however, several ethical, practical, and pedagogical aspects need to be considered for this technology tool to provide the sought-after pedagogical value in social work education.

**Keywords:** added pedagogical value; bullying; cultural competence; empathy; head-mounted virtual reality; immersive virtual reality; international social work



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## 1. Introduction

Bullying—a power domination behaviour by an individual or group to intentionally harm others either physically or emotionally over a period—is a social problem that is affecting children in all parts of the world [1–9]. Globally, almost one in three students (32%) are bullied by their peers at least once every month [3,5]. Moreover, a systematic review reports that bullying in schools is a widespread global social problem in which 90% of students are directly and/or indirectly involved [5]. Given that globalisation has resulted in multicultural societies around the world, some researchers indicate ethnicity as one of the risk factors for being victims of bullying in schools [6]. School-based bullying is therefore becoming a major global concern.

Previous studies have shown a strong association between school bullying victimisation and adverse health risks of mental, psychosocial, and behavioural problems as well as later life performance [7,8]. Bullying, as a violent and oppressive behaviour, causes harm, and, therefore, provides a powerful moral imperative for particular attention within social

work education and intervention [9]. The International Association of Schools of Social Work (IASSW) and the International Federation of Social Workers (IFSW) on the ‘Global Standards for Social Work Education and Training’ stipulates that social work education programmes in higher education institutions must include a critical understanding of social problems such as oppression and violence in promoting the health and wellbeing of all in society [10]. School-based social workers often face situations where they are required to provide support and assistance to both victims and perpetrators of bullying, which can be a challenging task. Often, identifying, fully comprehending, and effectively tackling school-based bullying becomes challenging for social workers as most of the bullying acts do not occur in front of them. In this sense, social work education needs to design appropriate curriculum and, importantly, adequate supportive pedagogical tools in teaching and learning interventions for tackling school-based bullying.

Previous studies show that empathy plays a significant role in understanding and tackling bullying and victimisation [11]. Empathy is commonly defined as the act of perceiving, understanding, experiencing, and responding to the emotional state and ideas of another person [12]. Empathy is considered an essential skill in mediating and tackling bullying [13,14]. In addition, empathy is referred as one of the general requirements in the way a social worker needs to approach service users/client and the public in general [15]. Gerdes and Segal (pp. 115) posit that, “empathy is one of the core elements of healthy relationships at every level and is therefore a pivotal theme in social work theory and practice” [16]. In essence, empathy is a core component of social work education and practice. Hence, teaching and learning empathic skills is crucially important in social work education for tackling school-based bullying. Although the issue of teaching empathy is documented in various literatures, there is still a lack of exploration of specific social work pedagogical strategies in enhancing empathy from a cultural competence perspective [17].

Cultural competence is a process through which social workers respond respectfully and effectively to people of all cultures—languages, classes, races, ethnic backgrounds, religions, and other diversity factors—in a manner that recognises, affirms, and values the worth of individuals, families, and communities; additionally, it protects and preserves human dignity [18]. Cultural competence education requires the development of knowledge and skills in profound understanding, appropriate behaviours, and positive attitudes for social work in culturally diverse contexts. Developing cultural competence includes both receiving and producing positive behaviour; that is, being able to understand social cues (receiving) and to behave in socially appropriate ways (producing) within a particular cultural context [19]. For instance, cultural competence in school social work requires the development of professional skills through awareness, exploration, and knowledge of different cultural identities (ethnicity, gender, social status, etc.) and the cultural dynamics (interactions between different identities) that exist within a particular school setting. In this respect, cultural competence in social work demands the development of empathetic skills.

In recent times, the fast-growing development of technology has brought about new ways and strategies to support the enhancement of empathic abilities in social work education. One example of this is that of Virtual Reality (VR). VR is potentially offering new and innovative ways in which students can better experience another form of reality to develop their empathetic skills. Virtual realities can be experienced on two-dimensional screens. However, in recent years, VR technologies have improved and with the introduction of Head-Mounted Displays (HMDs), VR experiences have become increasingly immersive [20]. While some earlier research in social work education concerns 2D VR [21,22], this study focuses only on 3D VR experiences, in which HMDs were used. HMD VR can be used to provide learners with immersive and seemingly authentic experiences and professional situations to discuss and reflect on [23,24]. There is also research evidence on how the pedagogical use of VR can increase engagement and support empathy enhancement in unique ways [25]. Moreover, numerous studies have confirmed the advantages of VR in cognitive performance, such as working memory, executive function, and attention [26]. In

a meta-analysis, exploring the effectiveness of HMD VR, it was found that such technologies were slightly more effective than non-immersive ones in learning [27].

VR has been suggested as a pedagogical tool for transformative learning, enhancing motivation and engagement, increasing contextualisation of learning, and more effective collaborative learning [28]. The potential use of HMD VR in social work education has been discussed by several researchers [21,28]. However, research on the use of VR for empathy development is limited [29]. This is illustrated by the fact that Ventura et al. (2020) found only seven articles to include in their meta-analysis on the use of VR as a medium to elicit empathy [30]. Nevertheless, the results of that meta-analysis illustrate that VR can be used to affect attitudes, perspective-taking, and prosocial behaviour more effectively than “traditional” interventions [30].

Recent studies indicate that HMD VR experiences from a first-person perspective are more immersive and induce more empathetic reactions than VR experienced on a 2D screen or when the VR user is a bystander in the VR scenario [29,31]. The importance and difficulty of creating, or finding and choosing, qualitative and pedagogically suitable HMD VR experiences for empathy development is also stressed in research [32], as is the need for more research in the field [25,33].

Some researchers have presented concerns regarding the use of HMD VR in social work education, stressing that the boundaries between one’s personal and professional roles might be challenged and that an existing ethical framework is lacking for using HMD as a teaching and learning tool [34,35]. This raises an interesting question: Is it not better to expose social work learners to those elevated levels of emotion during their training and development, as opposed to them first encountering them (ill-prepared) in the field? O’Connor, states that newly educated social workers often lack the ability to handle emotions [36]. He argues that social work education needs to prepare students in a comprehensive manner with emotional skills enhancement as social work is an emotionally demanding profession. Emotional exposure and experiences could give students an opportunity to develop their emotional intelligence and to be better prepared for their future profession. However, it is important to consider some of the side effects of VR, such as headaches, seizures, nausea, fatigue, drowsiness, disorientation, apathy, and dizziness, often cumulatively referred to as cybersickness [20,21,26,34,35]. Thus, ethical considerations such as voluntary participation and the right to abort participation and withdraw consent are arguably extra important in HMD VR research.

According to a systematic review performed by Radianti et al., most educational uses of HMD VR in higher education could be described as experimental, involving stages of prototyping and exploring with students [37]. Moreover, most of the studies included in their review focus on the usability of VR rather than on learning outcomes. There is also a need for more research on teachers’ professional use of why, when, and how to use HMD VR [38]. Although largely considered a promising technology for educational use, the pedagogical potential of HMD VR is, thus, still to be explored and developed [38]. Within this context, this study was undertaken in a multicultural education setting with a sample of 38 volunteer international social work students. The research team sought advice from experts on ethical considerations for undertaking this research. The ethical guidelines were carefully followed by the research team. The aim of the study was to analyse research participants’ experiences with a bullying scenario through HMD VR and to explore the pedagogical potential of this technology to support the enhancement of cultural empathy in international social work education. The study had the following overarching research questions (RQ):

RQ 1: How do the research participants describe experiencing the bullying scene with HMD VR?

RQ 2: How do the research participants account for their HMD VR experiences in connection with empathy?

RQ 3: How can the pedagogical use of HMD VR enhance international social work students’ cultural empathic skills?

## 2. Theoretical Framework: Empathy

School-based bullying is theorised as a social phenomenon with a complex social dynamic that occurs within specific cultural contexts [39]. For instance, a common causal explanation for school bullying is that the victim is different or deviant in some way, such as having different clothes, appearance, behaviour, or way of speaking within the school environment [40]. In this sense, it is imperative for social workers to have a profound understanding of creating a positive school culture and climate where students can learn in a bully-free environment. A positive school culture is a complex pattern of norms, attitudes, beliefs, behaviour, values, ceremonies, traditions, and myths which are deeply embedded in each aspect of the school [41]. School social workers are the most appropriate professionals when it comes to the facilitation of a positive school culture and climate with clear norms and expectations regarding factors such as safety, teaching and learning, and relationships, as well as the promotion of a safe environment for ensuring that children feel comfortable, ready, and safe to engage in learning [42].

Empathy is an essential part of social work education as it enhances interpersonal relationships and improves the quality and standard of social work practice [43]. Based on a literature review, King and Holosko present an elaborated theoretical framework on empathy in social work practice consisting of three dimensions—*affective*, *cognitive*, and *behavioural*—and having six latent constructs—(1) caring, (2) congruence, (3) interpersonal sensitivity, (4) perspective taking, (5) altruism, and (6) the therapeutic relationship [44]. *Affective empathy* is a powerful emotion within an interactive process that enhances emotional connection with and concern for others [44,45]. It plays a central role in social work interventions with victims and perpetrators of bullying. *Affective empathy* enables social workers to show care for others. *Caring skills* show concern for others and enhance helping relationships in creating a conducive environment for working on positive changes. *Affective empathy* also increases congruence, which is defined as an ability to be open, non-judgmental, and honest within helping relationships [45]. Geller and Greenberg argue that congruence involves, “in addition to valuing and understanding the other, the intentions to facilitate the others development, to be accepting and non-critical of the other, to confirm the others experience, to focus on their strengths and, above all, to do the other no harm” [46].

The *cognitive dimension* of empathy concerns understanding of what the other person thinks and feels [47]. This dimension requires social workers to learn and develop perspective-taking and interpersonal sensitivity skills. *Perspective-taking* is considered a thought-listing procedure in empathy development, where self-related thoughts are reflected for activating self-knowledge that is used in characterising others [48]. *Perspective-taking* is an important empathic skill through which social workers try to have a better understanding of problems/issues/concerns from the client/service user’s standpoint. In addition, *cognitive empathy* includes interpersonal sensitivity. *Interpersonal sensitivity* development requires social workers’ ability to perceive, understand, and respond with care to the cognitive states of another and predict the subsequent events that might occur [49]. It is a skill grounded in a communicative process between individuals, based on their understanding of one another’s body language and facial expressions that is often influenced by psycho-sociocultural factors such as gender, class, and physical appearance [17].

Finally, the *behavioural dimension* of empathy requires social workers to learn and apply behavioural skills based on altruism and therapeutic relationships. Social work emerged as a profession that is based on altruism, interpersonal caring, and therapeutic relationships. *Altruism* refers to a form of motivation for prosocial action and behaviour in enhancing another’s welfare through collaborative effort [17,50]. Moreover, therapeutic relationships within the behavioural dimension of empathy require skills for creating trust and a bond with the client/service user through being supportive and non-judgmental for bringing positive changes—such as in eradicating school-based bullying. King argues that in social work practice, empathy helps one to anticipate the behaviour of another as well as to amend one’s own intervention and approach accordingly [17].

The development of empathetic skills is therefore central in the professional education and development of a social worker. In this endeavour, most social work education courses focus on cultivating empathy among social work students [15–17]. Moreover, a comprehensive strategy to teach empathy incorporating important aspects, such as cultural diversity, ethics, and other foundational concepts, across the curriculum is essential in social work education [51]. Social work education, therefore, requires innovative methods to help learners to explore and develop their empathic skills. Within international social work education for enhancing cultural competence of students, particular attention is given to the development of cultural empathic skills.

Cultural empathy is defined as a deepening of the empathic response, allowing a sense of mutuality, and understanding across the noticeable differences in value and expectation through cross-cultural observations and interchanges [52]. Ouedraogo (pp. 317) states that, “the term cultural empathy refers to the ability to participate in the reality cognitively, affectively, and behaviourally, or world, of the cultural ‘other’” [53]. Cultural empathy is considered an essential skill that helps social workers to adopt an open attitude towards cultural diversity based on cross-cultural knowledge. It requires the capacity to understand and relate—with thoughts, feelings, and behaviours—to people from dissimilar cultural groups. Developing cultural empathy involves paying particular attention to culturally relevant content and requires reflexivity about one’s own and others’ cultural worldviews, as well as humility to know the limits of one’s reality for being open to learning from and about others’ cultural perspectives [54]. Developing cultural empathy, therefore, requires cross-cultural practices through transformative social work learning. Mezirow defines transformative learning as the process by which we transform our frames of reference (mindsets, habits of mind, meaning perspectives), sets of assumptions, and expectations—to make them more inclusive, discriminating, open, reflective, and emotionally able to change [55]. Transformative learning is, thus, a specific form of learning that involves and affects the learner’s relationship to both him-/herself and the outside world; and it can therefore be described as a demanding or even ‘painful’ process compared to learning factual knowledge or skills training [55].

According to Huttar and Brintzenhofe Szoc, the pedagogical use of HMD VR can effectively support transformative learning and the process of critically evaluating one’s own assumptions, beliefs, values, and perspectives [21]. Neden (2020) argues that social work education needs to promote transformational learning through experiential opportunities that can make learners become aware and critical of their own and others’ assumptions and perspectives, thereby stimulating self-examination and fostering cultural empathy [28]. It is therefore argued that HMD VR experiences, for example within the virtual setting of bullying, can help to enhance empathy development in social work education.

### 3. Materials and Methods

This study was conducted during the year 2019, with a group of 38 volunteer research participants recruited from the year 1 cohort of the Bachelor in Social Work with Specialization in International Social Work programme at the University of Gävle, Sweden. Social research ethical considerations and guidelines, as outlined by Hardwick and Worsley (2011), were carefully followed by the researchers [56]. All students were given an equal chance to participate. They were informed that participation/nonparticipation in the research would not influence their grades and informed consent was sought from the participants. The volunteer research participants were also made aware that they could drop out as research participants at any stage of the study, without the need to give an explanation. They were also asked to inform the researchers about any need for psychological support after participating in the research.

Given the potential of HMD VR to provide immersive experiences, and the fact that the HMD VR experience would put the users in the role of a bullying victim, the students as potential research participants were sent detailed information about this study and a link to the VR simulation one week prior to data collection. This gave them the chance to watch



the video in a standard (non-360°) video format and use the information and experience to make an informed decision about their potential participation as research informants.

Creating qualitative and tailor-made VR simulations is costly and time-consuming and requires technical know-how about suitable hardware and software. For these reasons, social work educators who want to use VR simulations for specific pedagogical purposes will most often need to find suitable VR content to use. For this study, a web search was made for free VR content that was still of high quality, e.g., with high resolution and credible acting and that could be used to support the students' learning of certain education goals in their study programme, e.g., the development of cultural competence and empathy and an understanding of potential situations in social work where these competencies are needed. The HMD VR simulation was thus not an isolated event but a compliment to and part of a larger educational experience, which is both pedagogically and ethically desirable [57].

The VR simulation used for this study is made by the Swedish Educational Broadcasting Company with professional and amateur actors in the roles of classmates; it consists of a dramatised high-resolution 360° video of a classroom situation from a first-person perspective with teenage classmates acting as bullies ([https://www.youtube.com/watch?v=Sxd2gTWUA\\_k&t=0s](https://www.youtube.com/watch?v=Sxd2gTWUA_k&t=0s), accessed on 1 May 2023). On the day of the data collection, the research participants were offered to experience the HMD VR simulation individually in groups of eight to ten. To support this, portable and standalone VR headsets (Oculus Quest 2™, Oculus, Irvine, CA, USA) and headphones were used to let all students experience the VR simulation at the same time, and immediately thereafter be ready for Focus Group Discussions (FGDs). The 360° video of the bullying situation had been preloaded in the headsets so that the students could start them easily and simultaneously. A sufficient number of VR headsets to allow for simultaneous HMD VR simulation was important to make sure that the students did not need to wait long for the FGDs. The choice of FGDs for data collection was thus important for ethical reasons; this way, the researchers could make sure that the students were able to reflect on their experiences together with others and under supervision. It also included pedagogical considerations. By comparing their reactions and discussing bullying as a phenomenon and the social workers professional roles with others in such a context, the FGDs complimented the HMD VR simulation pedagogically. Lastly, the use of multiple VR headsets meant that students were prevented from talking to and influencing each other before the FGDs, which is important from a research perspective.

In the simulation, the 'bullied' students were seated and unable to interact with objects or others in the setting, but they were able to look around and see different parts of the classroom and different students talking to or gesturing at them. Thus, the VR experience used was not interactive; in that sense, it was more like a cinematic VR experience [57]. However, the experience was interactive in the sense that the individual HMD VR users could see and hear different things by turning their heads to watch and listen to classmates and bullies in the 360° video. After the simulation experience, data for this study were gathered through 4 FGDs having 8–10 participants per group. The first author moderated the FGD sessions. On average, the FGDs lasted for about 45 min and were recorded using digital voice-recording devices. The FGD guide was focused on the aim and the set research questions of the study. The discussion items in the FGD guide were structured from the outlined theoretical framework on empathy and included open-ended questions such as: How was the HMD VR experience? How did you feel in relation to the bullying scenario and the cultural context? (Probing—ethnicity, gender, physical appearance, etc.) What can you tell about HMD VR and empathy in understanding the bullying situation? What are your views on HMD VR as a social work education tool? (Probing—benefits risks, challenges, constraints, etc.).

The gathered data in audio format, as well as the transcriptions of the recordings, were input in ATLAS.TI v.23 software. A deductive (based on the empathy theoretical framework) thematic analysis process, as outlined in Silver & Lewins and Woolf & Silver, were carried out with the help of ATLAS.ti [58,59]. To start with, quotations from the data

were identified and coded in relation to a code list based on the theoretical framework. The codes were then regrouped and linked with the concepts related to the theoretical framework. Analytical memos related to the study research questions were used in ATLAS.ti to create linkages between quotations, codes, and themes, as well as between theoretical and reflective memos. Theoretical memos contained theoretical notes from the literature review based on the theoretical framework outlined in this study. Reflective memos were used to make notes on researchers' observations and existing biases. The network feature in ATLAS.ti was used to create an analytical platform containing quotations, codes, memos, etc., through which the findings and discussion were carried out for this article. To enhance the rigour of the data analysis process, both inter- and intra-coder reliability checks were carried out by authors 1 and 2.

## 4. Findings and Discussion

### 4.1. Experiencing the Scene with HMD VR

The above table presents some examples of the main themes, codes, and quotations identified in relation to the RQ1 in the data analysis. As can be seen from Table 1, the research participants' descriptions of experiencing the bullying scene with HMD VR can be categorised into two main themes—beneficial and challenging. To most of the respondents, the scene became more 'real' with HMD VR than watching it in two-dimensional video format. HMD VR provided an environment where many of the research participants felt that they were in the context/situation where the bullying was taking place. The HMD VR technology helped the research participants to immerse far more deeply into the given situation, thereby evoking far more emotion. It allows the research participants to concentrate better on the situation and, therefore, have a better understanding of the happenings within the context. From the gathered responses, it can be said that the HMD VR technology helps in creating higher levels of engagement and connection with the happenings in the bullying scenario. This is a central aspect of transformative learning and something that ordinarily requires the students' imaginations [60]. Using HMD VR helped the research participants to experience a simulated context but made the teaching and learning tasks more authentic, as illustrated by the quotations. Thus, the results illustrate how use of HMD VR can contribute as a pedagogical added value by helping teachers design a shared and authentic learning experience that can support individual and collaborative reflections on multiple perspectives (including cultural) [60,61].

**Table 1.** How do the research participants describe experiencing the bullying scene with HMD VR? (Examples).

Themes	Codes	Quotations *
Beneficial	Real Situation	<ul style="list-style-type: none"> <li>You can see it from a real situation, from the environment</li> <li>Yes yes yes . . . Like real.</li> <li>I think it was a good way. The method to be in a real situation. I liked it very much.</li> </ul>
	Allows Immersion	<ul style="list-style-type: none"> <li>I felt like I was actually there.</li> <li>It was like to be in the place and see how it was to really be there.</li> <li>Like you really felt that you were a person who was being bullied. Do you understand? It was like I knew how it is . . .</li> </ul>

Table 1. Cont.

Themes	Codes	Quotations *
Beneficial	Better Concentration and Understanding	<ul style="list-style-type: none"> <li>Like yesterday when I was seeing it (in YouTube—2D), it was not that clear, but for me it is today I actually felt totally in the setting (with HMD VR). So I think that VR helped to get engaged more than how it was yesterday</li> <li>Yesterday (on YouTube—2D) more superficial. Yesterday it felt like more I was being forced to think. And like everything was happening to some other people and I was like trying to gain understanding in what was happening. Today it was more that I was experiencing everything. I did not think that I should try to understand ... it was just part ...</li> </ul>
	Mixed Reality	<ul style="list-style-type: none"> <li>I felt like basically everyone was bullying each other and there was no real power imbalance. In reality, it is not so. There was no real group that was attacking other people. Everyone was kind of bullying each other ...</li> <li>I did not feel that “Oh this is actually real”. I felt like I was watching a movie. Like, “Oh they are dramatically bullying someone”.</li> </ul>
Challenging	Negative Feelings & Emotions	<ul style="list-style-type: none"> <li>... I felt very lonely, because it was a big class and the teacher was there. But, it still it felt like I was alone. It was due to the situation ...</li> <li>... Fear and insecurity. And a type of weakness. Because this kind of bullying can actually damage someone</li> <li>I felt anger. I was so angry</li> <li>I was a bit nervous ... I had to stand up</li> <li>I really put myself in her shoes and like feel all that negativity and I was just like “oh my god”</li> </ul>

\* Note: Quotations might overlap with other codes and themes.

However, in using HMD VR as a pedagogical tool, it is important to note the challenges that the respondents have raised in their respective FGDs. Some of the participants highlighted a ‘mixed-reality’ feeling while using the HMD VR to experience the bullying scene. Through the HMD VR, they had the opportunity to compare the happenings in the scenes with their own construction of ‘reality’. A couple of respondents described their experience as a dramatic situation where they were questioning whether such happenings take place in ‘reality’. The participants also mentioned that they found the use of HMD VR challenging for the emission in the virtual environment heightened their negative feelings and emotions such as fear, nervousness, anger. In fact, HMD VR can be used to elicit and help people to cope with such negative emotional responses [26,62].

#### 4.2. Describing the Bullying Scene Using HMD VR and Empathy

The research participants’ accounts of the bullying scene using HMD VR can be connected to the three domains of empathy (affective, cognitive, and behavioural) as described in the theoretical section of this paper and presented in Table 2.



**Table 2.** How do the research participants account their HMD VR experiences in connection with empathy? (Examples).

Themes	Codes	Quotations *
Affective	Caring	<ul style="list-style-type: none"> <li>• “I just kept thinking about what I could do to stop the bullying.”</li> <li>• “I felt so bad about it. For me it feels like reality and that no-one cared about me.”</li> <li>• “When you are a victim, you could think that it will only get worse if you say something to the teacher . . . That it will only get worse when they get out of the classroom.”</li> </ul>
	Congruence	<ul style="list-style-type: none"> <li>• By experiencing HMD VR and feeling as if you are in the situation, your mind begins to think about how to solve this situation. Not just in this . . . video, in general.”</li> <li>• “I just kept thinking about what I could do to stop the bullying.”</li> </ul>
Cognitive	Interpersonal Sensitivity	<ul style="list-style-type: none"> <li>• “I put myself in her shoes and felt . . . bad for that person. What if it was me? It was very emotional . . . ”</li> <li>• “ . . . the people who bully can be so angry. And then they are not ready to listen . . . share . . . because they are too affected [emotional]... So, the more you react, the more they are doing more . . . For me I feel, like, it is not the right person to feel angry.”</li> <li>• “I was thinking that it was something that was continually happening” . . . “I wonder why the teacher was not doing anything.” . . . “Perhaps there was . . . a power imbalance between the teacher and students.”</li> <li>• “It was not shown, but I assumed it was a girl who was being bullied. I wanted to defend her. It was a girl because they are the weaker sex.”</li> </ul>
	Perspective-Taking	<ul style="list-style-type: none"> <li>• “(With the HMD VR) I was in the room and watching the other person being bullied. I felt the same as I would feel if I was actually there.”</li> <li>• “I kept thinking of the teacher also . . . maybe the teacher did not see what was going on. Maybe the teacher was caught up in himself . . . maybe had issues so he did not see what was going on.”</li> <li>• “it must have been so frustrating for the girls that the teacher did not seem to mind what was happening.”</li> <li>• “It was like being in the place and seeing how it was to really be there. It looked like the girl had been bullied many times before.”</li> </ul>

Table 2. Cont.

Themes	Codes	Quotations *
Behavioural	Therapeutic Relationship	<ul style="list-style-type: none"> <li>• “The bullies might have their own problems. Problems in their own families, suffering from things. We need to focus on supporting and helping them, taking contact with their families, offering support. They need help.”</li> <li>• “what do I need to do to stop this? How does the teacher reach the perpetrators? How do we reach them?”</li> <li>• “Even though I knew it was VR. I felt it . . . I think that is a good practice for social workers, because then you can, like, understand what that person felt like . . . If you are suicidal for example, then you can say: ok, I understand you experience this and it made you feel like that, but there is a solution. Rather than saying you need to go to therapy . . . you need to do this, because then you don’t build any trust.”</li> </ul>
	Altruism	<ul style="list-style-type: none"> <li>• “I just wanted to make it better”,</li> <li>• “When the person tried to control her, I wanted to help her. I wanted to get her to stop her from doing that”,</li> <li>• I felt that I wanted to make a report to the social services, and see how it could be handled.”</li> </ul>

\* Note: Quotations might overlap with other codes and themes.

The respondents discussed that they displayed a high degree of caring and compassion for the victims, as well as for others (teacher and the perpetrators) involved in the scenario. Caring is an important component of the affective domain of empathy as it requires immediate reaction to someone else’s needs using a set of professional skills [17]. A sense of caring is a basic prerequisite of social workers’ professional behaviour [15,16,63]. Concern and caring for others can lead to “empathic anger,” evoked by awareness and frustration that another person has been harmed and/or treated unfairly [64]. In FGDs, several respondents highlighted their anger but also mentioned the need to help both the victims and the perpetrators of bullying. This is in accordance with King’s description of congruence in empathy development [17]. Several respondents described their own experience of bullying and were in congruence with what they experienced from watching the bullying scene using HMD VR. Often the levels of both caring and congruence were elevated, such that some respondents found it rather overwhelming as an experience. They became immersed in the VR reality, and the reality became their own. For instance, the research participants empathetically discussed the pain and hopelessness of those being bullied, as well as a concern for those who get engaged in such behavioural problems.

As discussed in the theoretical framework section of this paper, a core focus of the cognitive dimension of empathy is on interpersonal sensitivity. Interpersonal sensitivity is often defined as openness to understanding and adopting the perspective of another in empathy development. Feeling as another person feels and feeling for another person also form part of interpersonal sensitivity in empathy development [49]. Compared to the affective dimension of empathy, the cognitive dimension stresses the importance of maintaining objectivity and distancing oneself from the emotional content of another’s experience and environment. Interpersonal sensitivity requires more reflections based on objective observations and mental constructions to grasp the conditions and situations of others. Interpersonal sensitivity requires the ability to read others’ emotions, which is critical for empathic understanding [65]. The respondents often stated that they felt for the victims, and the MMD VR helped them be in the shoes of the victims. Within the cognitive

dimension, King stresses the ability to recognise others' points of view, defining that skill as perspective-taking [17]. When human beings are exposed to a situation with others, they not only resonate with others, they also intentionally adopt or imagine the psychological viewpoint of others based on their cognitive abilities [49].

The FGDs reveal how the research participants interacted, building on a common interest in creating meaning from their HMD VR experience. In one of the FGDs, there was a lengthy discussion on the role of the teacher and the power relationship in the classroom. Through the use of HMD VR in combination with FGDs, the research participants were involved in a learning process through their own interpretations as well as developing collective meanings on bullying from their respective individual experiences and perspectives. Intersubjectivity—a common understanding amongst individuals who interact based on shared interests and assumptions—is an essential element in exploring the social meanings of behaviours such as bullying [62]. One consideration that was raised during the discussions among the research participants was whether the power imbalance in the whole scenario was somewhat based on ethnicity. The discussion in all FGDs made references to how bullying takes place and is dealt with in other cultural/country contexts—such as in Nigeria, Finland, and Tanzania. The students following the social work programme with a specialisation in international social work came from different cultural backgrounds and had differing previous experiences with bullying. Interpersonal sensitivity is a skill that is influenced by the sociocultural context, and it is characterised by understanding the influences of social structures, cultural differences, and role expectations [17]. In this sense, some respondents in the FGDs were letting their judgements be coloured by preconceptions and ideas based on sociocultural aspects such as gender and ethnicity. For instance, a few research participants assumed the bullies to be men and reciprocally assumed the bullied students to be girls. In addition, the research participants were more likely to adopt perspective-taking in the FGDs if they could relate to the situation on a personal level. In this study, a pattern emerged whereby participants exhibited a need to relate to an experience of their own in having empathy for another person. How cultural differences affect whom one shows empathy towards is vital, and it is beginning to be studied in social work education and professional development [17,43].

Despite these differences, during the FGDs, the research participants displayed similar views regarding the kinds of actions they were eager to take. Many of them expressed a desire to contact social services. These kinds of acts of empathy can be described as altruism—a strong desire to help [17,44]. Social work is characterised as a profession based on altruism as one of its core values. It is, therefore, vital that students get the opportunity to experience situations that evoke a sense of altruism in them through the HMD VR. Altruism is often a neglected area in social work and discussions about it can be beneficial for the understanding and the study of human interactions and behaviours [66]. Altruism is more than just having feelings and concerns for others; it requires getting engaged in prosocial behaviours. In the FGDs, the research participants also discussed therapeutical relationships. There was a general agreement amongst the research participants that the people who bullied also needed social work support and help. The therapeutic relationship is a central theme within the behavioural dimension of empathy [17,44]. The therapeutic relationship requires a willingness to show empathy and motivate action. From a psychodynamic perspective, therapeutical relationship-building requires practices through exercises. Using HMD VR, therefore, provided the research participants a unique and distinct opportunity where they were able to think about and reflect on therapeutical relationship-building in a specific case—bullying—in a specific cultural context.

#### *4.3. HMD VR: Enhancing Cultural Empathy in International Social Work Education*

Social workers need to be equipped with the empathetic knowledge and skills to address social problems, such as bullying in schools. Having empathy means that a person can understand and comprehend another individual's or group's subjective feelings and experience in a particular context. Learning to become more empathetic thus in-

volves developing abilities for having better awareness and understanding of the context within which problems occur. Better awareness and understanding involve identifying, reflecting on, and expanding one's frames of reference and perspectives. In fact, it requires a perspective transformation that is a central outcome of transformative learning. Moreover, it requires students' imaginations and critical reflections. That is the reason why transformative learning theory recognises the centrality of experience in learning, as well as critical reflection and rational discourse with others about their feelings and perspectives on experiences [55]. In this study the pedagogical use of HMD VR gave the research participants an opportunity to experience a bullying situation in a Swedish classroom from a first-person perspective and, thus, in a sense to participate in the reality of a cultural 'other'.

As in real life, research participants' interpretations and reactions to the bullying scenario through the HMD VR experiences differed according to their respective cultural backgrounds. The shared cultural experience of a situation through the pedagogical use of HMD VR became apparent in this study, and it could be compared, discussed, and critically reflected upon in the FGDs. This way, the aspects of bullying that students experienced in the HMD VR simulation could be discussed and complemented with additional perspectives. Such an opportunity and experience arguably are critical in facilitating and increasing the students' understandings of their own and their classmates' different abilities to perceive, understand, experience, and respond to the emotional states based on different cultural backgrounds. This kind of knowledge can emerge from critical thinking and is in line with previous studies in which HMD VR has been used to create virtual user experiences of professional situations that can be used as a basis for individual and shared reflections and transformative learning [67,68]. Social work students are therefore required to not only learn the theoretical dimension of social work practice but also the professional intervention aspects in interacting with people having different cultural backgrounds and perspectives. Discussing a shared experience through HMD VR brought to light different cultural interpretations of the situation and with interpersonal sensitivity and more application of their senses and reflection on their skills. The quotes in Table 3 illustrate how the experience of bullying, in combination with group discussions, created opportunities for the enhancement of (cultural) empathy by helping students become more aware and critical in recognising and assessing their own and others' taken-for-granted assumptions in frames of reference and perspectives.

**Table 3.** How can the pedagogical use of HMD VR enhance international social work student's cultural empathic skills? (Examples).

Themes	Codes	Quotations *
Knowledge	Better Awareness and Understanding	<ul style="list-style-type: none"> <li>• "You think of what you have to do as a social worker. HMVR helped me to understand the whole picture".</li> <li>• "The video that was shown I understand now in every way and you can see the back stage ... In very clear ... and you can see the backstage scenario and the see like the side activities and hear it clearer than normal in a video. I think that the whole thing was clearer ... everything was much clearer and it was more understanding about the situation"</li> </ul>

Table 3. Cont.

Themes	Codes	Quotations *
Knowledge	Abilities & Limits	<ul style="list-style-type: none"> <li>• “this is something that has gone on for a long time. It is clear that this is the environment they are used to. Someone from outside needs to come and help”</li> <li>• “I was more thinking of ok how can I stop this. When I went to school, we did for example an anti-smoking campaign. We were all like we are never going to smoke. That would help people to not have to smoke. Adults just cannot tell kids in puberty. They just do not listen. So, it is rather how do you reach the kids, also as a teacher. Like, how do you teach the teacher to handle bullying in the class? How does the teacher reach the perpetrators? How do we reach them? There in this polar mind-set. How do you reach a child like that?”</li> </ul>
	Critical thinking	<ul style="list-style-type: none"> <li>• “Your mind begins to think about how to solve this situation. Not just in this [HMD VR scenario], in general. You think of what you have to do as a social worker.”</li> <li>• “Especially when a person in front of me was trying to do that kind of power play, I was still thinking about the environment that allows children, or people, to just bully each other, because the teacher was gone. It is a kind of environment that . . . It is like how can you change it? How do you especially . . . I got the feeling like, what do I need to do to stop this?”</li> <li>• “I felt as if the children being bullied came from a minority group in the society”. Respondent three from group four also reaffirmed this possible ethnic imbalance issue by sharing “I am not from XXX, there are things I could do in my country, but not here. I don’t know what could happen to me in XXX if I defended myself when bullied. I am a minority.”</li> </ul>
Skills	Professional help	<ul style="list-style-type: none"> <li>• “I felt as if I wanted to defend the person being bullied . . . I would address the issue of bullying serious. Parents need to get involved. I felt as if someone needed to take action.”</li> <li>• “What do I need to do to stop this? How does the teacher reach the perpetrators? How do we reach them? There in this polar mind-set.”</li> </ul>



Table 3. *Cont.*

Themes	Codes	Quotations *
Skills	Emotional intelligence	<ul style="list-style-type: none"> <li>• “Like I am very emotional and . . . so there are things that I have seen and when I think of them... I feel bad about...”</li> <li>• “Maybe someone can get overly emotional, and it might interfere . . . it might trigger past experiences. Then I think that it comes to like the persons own competence. Like, they should be able to know when to stop their own emotions. And see when it can benefit you.</li> <li>• “We as social workers we have to put our self into their situation. We normal focus on them who do the bullying. We focus on the person. We forget about the environment allow them to be bullies. There is no anyone who can stop them... We have to understand that this way is affecting their emotions, physical . . . ”</li> </ul>

\* Note: Quotations might overlap with other codes and themes.

This is central to the development of (cultural) empathy since, if learners are to change their “meaning schemes”, i.e., their specific beliefs, attitudes, and emotional reactions, they need to “engage in critical reflection on their experiences, which in turn leads to a perspective transformation” [55]. Allowing to “step in others’ shoes” is exactly how the pedagogical use of HMD VR enhances international social work students’ cultural empathic skills. The results from this study clearly indicate that the use of HMD VR in social work education can enhance participation among students and, thus, increase understanding and enable cultural empathy. As illustrated by the quotes in Tables 1–3, the immersion and authenticity provided in using HMD VR affected the research participants emotionally. Emotions play an important role in enhancing students’ empathetic level in social work education. In this study, it was possible for the research participants to experience the situation and reflect on their abilities and limits with regard to their emotions through the pedagogical use of the HMD VR. Emotions create conditions for enhancing the ability to be empathetic in providing professional help and services to clients who are experiencing physical, psychological, and/or emotional pain [45]. Emotion is an expression of an individual, but it is influenced by collective and professional experiences [69].

In social work education with the pedagogical use of HMD VR, students not only learn about and practice enhancing their empathic skills, but they also learn how to develop cultural competence in developing empathy with clients (e.g., victims and perpetrators). In this sense, the HMD VR can be considered an essential tool in social work education and learning for enhancing the emotional–intelligence skills of the students in a culturally sensitive manner. Emotional intelligence is defined as the ability, capacity, skill, or self-perceived ability to identify, assess, and manage the emotions of oneself, of others, and of groups in a sensible manner [70–72]. As mentioned earlier, in this study, several research participants voiced conflicting views from different cultural perspectives (based on gender, ethnicity, profession, country). Such views and perspectives were explored and experienced more in-depth through the HMD VR, according to the research participants. The research participants also reflected and discussed possibilities for developing culturally sensitive coping strategies in dealing with emotions. Social work is an emotionally and morally demanding profession that requires educators to give thought to issues of building resilience and coping strategies [69]. The 360° video of a classroom situation in a specific cultural context was described as an important tool for research participants to observe, feel, and reflect upon their emotions and the emotions of others in discussing the cultural dimensions involved in building resilience and coping strategies.

## 5. Limitations

The literature search for designing this study was performed prior to the year 2019 using several databases, such as SCOPUS and Web of Science, and another layer of literature search was carried out while writing this article. However, the literature reviews were not carried out in a systematic manner. In addition, this study was not an experimental one, and its purpose was to explore the perspectives of the social work students on the potential of HMD VR as a pedagogical tool. The 360° video used in this study already existed and was not made specifically for this research. Nevertheless, the material was carefully chosen and found suitable as a pedagogical tool for international social work education.

The interviews conducted in this article were with students enrolled in international social work programmes from different countries and with different and diverse experiences using new technologies. For most of the research participants, it was their first experience with HMD VR. Perhaps, different perspectives might emerge as the findings of the study are replicated with a more homogenous group of research participants. In addition, this nonexperimental study needs to be considered from an antipositivist/interpretative perspective. This means that the article is based on the subjective interpretations of the research participants based on the gathered empirical evidence from the FGDs. The focus group discussion moderator, based on his 25 years of experience and training in social research, employed interviewing skills and techniques as outlined by Cyr (2019) to allow and nurture different opinions and views of the research participants during the discussion [73]. Moreover, a reflexive method using ATLAS-ti software as outlined by Rambaree (2014) was used by the researchers to deal with potential peer biases in analysing the gathered data from the focus group discussions [74].

The findings from this study need to be generalised with care. Kimball and Kim draw attention to how the use of HMD VR in teaching and learning assumes that all students have previous experience with and are comfortable with using new technologies at a more advanced level [35]. HMD VR and other technological tools are starting to become popular in social work education [20,21]. Today, most students in the social work education are gradually having more and more exposure and access to new technologies. However, there is quite a wide spectrum of access levels, exposure levels, and knowledge on new technologies among students and teachers around the world. This can be challenging when using HMD VR as a pedagogical tool in social work education. Finding resources and time to train social work educators in HMD VR technology and to gain adequate access to proper equipment can be a major constraint for some educational institutions [35]. This study was, therefore, limited by the available resources.

## 6. Conclusions

The results from this study illustrate that the use of HMD VR can bring another perspective to students' teaching and learning. The use of HMD VR technology indeed helps teachers to provide their students with a virtual but "authentic" experience and learning tasks. It helps the students to become immersed in a specific situation and context, thereby evoking strong emotions, as well as creating significantly high levels of engagement and connections for critical thinking and critical reflection. However, it should be stressed that subjecting students to an HMD VR simulation like the one in this study can be both ethically and pedagogically questionable if it is done as an isolated incident, and not as part of a wider learning context and experience. For example, in this HMD VR simulation, the student is placed in the role of the bullying victim and experiences a specific incident from a certain perspective. The FGDs that followed immediately after this experience provided the international social work students with an opportunity to discuss, make sense of, and expand on this experience together with others. Thus, for ethical and pedagogical reasons, it is important to carefully consider the potential added pedagogical value of HMD VR experiences and to collaboratively contextualise and discuss these experiences in relation to educational goals, course literature, and professional practice.

Transformative learning is a must in preparing social workers as front-line service providers in dealing with traumatic situations, which requires adequate training and pedagogical tools and approaches in social work education [75]. The results of this study illustrate how HMD VR can be used to add pedagogical value in support of transformative learning through virtual experiences. For example, individually and collectively experiencing, rather than reading about, a bullying situation from a first-person perspective and discussing the experience with other peers, supports and facilitates students' critical thinking and reflection on different cultural perspectives that are often difficult to grasp through readings.

As a final conclusion, it can be said that the pedagogical use of HMD VR contributes towards cultural empathy enhancement, which is a prerequisite for being a social worker. However, one of the major challenges remains on how to make such pedagogical tools more inclusive. For instance, how to include social work students with special needs, as they may face several barriers to being able to use such technologies that require subtle movements with their bodies.

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