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The Link Between Memory, Narrative and Empathy in Teaching Difficult Knowledge in Holocaust Education

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Research has shown that the use of first-person narrative can foster a high level of identification, empathy, and an increase in memory. However, little is known about the effect of first-person narrative in the teaching of difficult knowledge. In this study, we examine how pre-service teachers (PSTs) ($N = 55$) process difficult knowledge presented in a first-person narrative and a third-person narrative film, using behavioral measures of empathy, level of previous knowledge and of short-term and long-term memory. What was surprising about the findings in this study was that the third-person narrative film contributed to a higher performance in both short-term and long-term memory compared to the first-person narrative film.

Keywords: difficult knowledge, empathy, memory, first-person narrative, third-person narrative

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INTRODUCTION

The aim of this study is to use the findings to help educators in their task of presenting difficult knowledge in the classroom by enhancing the intelligent use of the medium of film to facilitate learning. Educators today are tasked with the challenges of teaching difficult knowledge about our human history that allows students to both learn and commit the knowledge to memory. The Holocaust is one of the most significant examples of difficult knowledge and it is imperative to explore student reactions to a challenging and difficult event such as this with the goal of preventing it from happening again. Research has shown that the use of first-person narrative can foster a high level of identification, empathy and memory; however, the effect of first-person narrative when teaching difficult knowledge has largely been unexplored. This study aims to fill this gap by examining how pre-service teachers (PSTs) cope with difficult knowledge by comparing their reactions to films using both first-person and third-person narrative, and measuring their levels of empathy, previous knowledge of the subject matter and levels of memory. A 55 PSTs aged 40–50 from Israel participated in the study. The goal of this study is to provide insight for students and teachers into how the type of film narrative assists students to deal with the challenge of teaching difficult knowledge about the Holocaust.

THEORETICAL BACKGROUND

How to teach difficult knowledge in the classroom is a question that many educators face during their career. Difficult knowledge is an academic term given by researchers to topics that have the potential to challenge the accepted worldview of a particular society, or to create fear and even trauma (Zembylas, 2014). Difficult knowledge is a theoretical construct suggesting that when

an individual encounters representation of social and historical trauma, a host of emotional and pedagogical complications arise during the learning process (Garrett, 2010).

Classroom curricula requires engagement with difficult knowledge – trauma, social justice, genocide, slavery and oppression. One of the missions of an educator is to seek out ways to transmit this knowledge to new generations effectively with the hope that this may influence future conflict-management and peacemaking efforts outside of the classroom (Shulman, 1987). The term difficult knowledge was coined by educational and psychoanalytic theorists, Deborah Britzman and Alice Pitt and Britzman (2003). According to Britzman, newly introduced information that unsettles the learner's identity and preconceived understanding of the world around them is defined as difficult knowledge (Perreault, 2017). Britzman (2000) places difficult knowledge in the affective realm – a "borderline" between thought and emotion (p. 36). Difficulty happens when a person's conceptual frameworks, emotional attachments, conscious and unconscious desires desettle one's ability to settle the meaning of past events (Simon, 2011).

One of the most prominent examples of difficult knowledge is knowledge about the Holocaust. The rationale for teaching about the Holocaust is grounded in the understanding that learning about the pain of others in the past encourages students to be critical of activities, people, or events in the present, and to work toward more peaceful and tolerant futures (Sheppard and Levy, 2019). Holocaust education must be implemented into the curriculum allowing for an understanding of humankind and the awareness of the fragility in social values and the complexity of moral choices (Katz, 2018). Educators must be able to allow learners to engage with the difficult experience of others. Engagement with difficult knowledge assumes a moral responsibility by enabling empathy and perspective-taking (PT) with the experience of another. Teaching about the Holocaust raises concerns among teachers and brings with it difficult dilemmas in didactic and psychological fields (Dror, 2001; Stevick and Michaels, 2013; Gross, 2018).

Empathy and Perspective-Taking (PT)

Empathy and PT are two human abilities vital for social interaction. An understanding of another is accomplished by the sharing of emotions and affective state and also by thinking and reflecting on the thoughts of others. Empathy (emotional sharing) and PT are conceptually distinct processes based on separate brain networks (Kanske et al., 2015). Studying empathy and PT associated with watching a film about difficult knowledge allows us to harness the tools of neuroscience to enhance pedagogical learning.

Neurocinematics, Empathy and Perspective-Taking (PT)

Over the past decades, research of film and video footage has increasingly been used for teaching empathy, PT, and other skills relevant to social and emotional learning (Muller and Kane, 2017). The filmmaker, by telling his/her story, does not only involve us in the story rather he/she can even change our emotions and perception of the world (Gallese and Guerra, 2019). Neurocinematics explains in part how this is possible. Neurocinema combines the disciplines of neuroscience and filmmaking to assess the effect of a film on the viewers' brain activity and their reactions (Hasson et al., 2008a,b). Film is a potent tool that allows for emotionally loaded material of difficult knowledge to be exposed; as such, it is extremely powerful in driving mental processes as they unfold in time (Shimamura et al., 2013). By sharing in the sights and sounds of the film's story, and the mirroring of characters' emotional expressions by the audience, film can provide access to both cognitive and affective empathy (Stadler, 2017).

Cognitive and Affective Empathy

Empathy, or the ability to understand and share the mental states of others, is a key psychological skill that humans have developed in order to successfully navigate our life as social beings. There are two recognized forms of empathy: cognitive empathy (mentally representing other people's thoughts, feelings, and intentions, also known as PT, mentalizing, or "Theory of Mind") and affective empathy (aligning one's own emotional state with another person's emotional state) (Davis, 1983; Baron-Cohen and Wheelwright, 2004; Wagner et al., 2015).

The Interpersonal Reactivity Index is a tool to measure empathy. It assumes that there are four related, but individually distinct in concept, aspects of empathy that can be measured: (1) perspective-taking (PT): the tendency to spontaneously adopt the psychological point of view of others; (2) fantasy: measures respondents' tendencies to transpose themselves imaginatively into the feelings and actions of fictitious characters in books, movies, and plays; (3) empathic concern (EC): assesses "other-oriented" feelings of sympathy and concern for unfortunate others; and (4) personal distress (PD): measures "self-oriented" feelings of personal anxiety and unease in tense interpersonal settings. These four subscales can be further categorized into two groups to distinguish between the cognitive aspects of empathy (PT and fantasy) and affective aspects of empathy (EC and PD) (Wagner et al., 2015). The Interpersonal Reactivity Index allows for a focused observation of individual characteristics of empathy, and in addition, a multidimensional view of empathy in general (Davis, 1983).

First-and Third-Person Narrative

Narrative perspective is perhaps the most fundamental feature of a narrative (Kaufman, 2009). Studies have shown that first-person narratives create a more immediate sense of closeness and familiarity to the main character; therefore, being more conducive to empathy than third-person narratives, which explicitly position the main character of the story as separate entities (Kaufman and Libby, 2012). In a study of narrative perspective, the research found that participants identified with a character more when the narrative was told from that character's perspective and resulted in a higher identification with the character, leading to a greater persuasiveness of the narrative (de Graaf et al., 2012; Nan et al., 2015).

According to Hakemulder (2000), narrative perspective affects outcomes but the exact nature of these effects depends on subject

matter. The question raised from these findings is whether this will remain truthful when the subject matter is dealing with difficult knowledge.

RESEARCH QUESTIONS

1. What are the connections between first-person and third-person narrative to the level of short-term and long-term memory while watching a film with "difficult knowledge?"
2. What is the connection between the level of empathy and memory level in the short and long term?
3. What is the connection between the level of previous knowledge of the subject and memory level in the short and long term?

MATERIALS AND METHODS

Participants

The sample size was determined *a priori* by using G*power software. For ANOVA with repeated measures (within-between interaction) analyses and for the test parameters: effect size = 0.25, $\eta p^2 = 0.06$, α error = 0.05, power = 0.90, the total sample size required was 55 participants. In order to increase power and sensitivity, the present study comprised of 55 pre-service teachers (PSTs) (21 males and 34 females). The PSTs ages ranged from 20 to 50 ($M = 40.06$, SD = 11.02). Most of the PSTs were aged between 40 and 50 (48 PSTs, 87.3%). The average age of the PSTs was higher than usual at the time the study was implemented due to an increase of older individuals transitioning to a second career in teaching following a government campaign to address the shortage of teachers in Israel. All of the PSTs who participated in the current study watched two films with similar themes but told from different perspectives.

The main aim of the current study was to examine whether significant differences would be found between the two films in the performance on STM and LTM tests.

The sample was divided into two groups. The first group comprised of 29 PSTs (11 males and 18 females) who watched the film clip "Anne Frank" (third-person perspective) first. The second group comprised of 26 PSTs (10 males and 16 females) who watched the film clip "Instagram Holocaust Diary: Eva's Story" (first-person perspective) first. This deviation into two groups aimed to counterbalance for the films order in order to prevent alternative explanation for the differences in the performance on STM and LTM tests such as fatigue after watching the first film.

In order to examine whether the two groups differed in gender, x2 conducted. No significant difference between the two groups was found in the gender distribution, $x^{2(1)} = 0.00$, $p = 0.968$. The percentage of males and females who participated in the study did not differ significantly across the two groups.

As background measures, all PSTs were requested to answer four questions regarding the holocaust and to fill the Interpersonal Reactivity Index (IRI) regarding their reactions to observing others' experiences. So as to examine whether the two groups differed in these background measures, two independent sample *t*-tests were conducted. Furthermore, the IRI measure has four subscales, each made up of seven different items. In order to examine whether the two groups differed in the scores on the four subscales of the IRI, one-way MANOVA was conducted. **Table 1** presents the mean, SD and *F*-values of the background variables by group (film order).

As can be seen in **Table 1**, no significant difference between the two groups were found in the level of previous knowledge about the Holocaust, in the IRI total score and in each of the four subscales of the IRI. These results indicated that the PSTs who watched the film clip "Anne Frank" (third-person perspective) first and the second group who watched the film clip "Instagram Holocaust Diary: Eva's Story" (first-person perspective) first, did not differ in their previous knowledge about the Holocaust and their self-report in the IRI.

Materials

1. Film clips: Two clips are used: Instagram Holocaust Diary: Eva's Story presented in first-person narrative and the story of Anne Frank, in third-person perspective. In order to remove variables and deepen the observation of the point of view (first-person and third-person) both films were edited by a professional film editor. The editing of the films provided a match between the content, plot, characters, events and timing throughout the film. In addition, the duration of each film was the same: 7.5 min exactly.
2. Preliminary Questionnaire: A questionnaire including informed consent and demographic information.
3. Previous knowledge of the Holocaust Questionnaire was filled out by the participants. As part of this preliminary questionnaire, an assessment of the participants' previous familiarity with the films was also completed (Golub and Cohen, 1993).
4. Empathy Questionnaire: The self-report Interpersonal Reactivity Index (IRI) was used as a measurement tool for the multi-dimensional assessment of empathy (Davis, 1983).
5. Memory Tests: Two multiple-choice tests assessed the participants' memory of the films, one given at the end of watching the film (STM) and the second given a month later (LTM). The questions focus on material presented on the films and not general knowledge. The questions address details specifically related to each film, to avoid answers that may draw on prior knowledge of the content. The questions to assess STM of the two films were largely identical in order to provide balance in the level of content and difficulty. The questions include ones that relate to the character's age, the place of the event, the time of occurrence and the names of the characters and their role in the story.

ETHICS AND CONFIDENTIALITY

The study was carried out in accordance with the guidelines set out by the Beit Berl College Ethics Committee.

TABLE 1 | Mean, SD and *F*-values of the background variables by group.

Background variable	Order 1[b]		Order 2[c]		F	p	ηp^2
	M	SD	*M*	SD			
Previous knowledge about the holocaust[a]	3.83	0.38	3.69	0.74	0.87	0.390	0.01
Interpersonal reactivity index -IRI							
Perspective taking (PT)	3.93	0.56	4.03	0.52	0.43	0.512	0.01
Fantasy (FS)	3.24	0.60	3.38	0.72	0.64	0.427	0.01
Empathic concern (EC)	4.19	0.56	4.26	0.44	0.23	0.631	0.00
Personal distress (PD)	2.61	0.62	2.43	0.59	1.23	0.271	0.02
IRI total score[a]	3.49	0.40	3.52	0.33	0.31	0.760	0.00

[a] *Independent samples t-test was conducted.* [b] ***Order 1****: Watched the film clip "Anne Frank" (third-person perspective) first.* [c] ***Order 2****: Watched the film clip "Instagram Holocaust Diary: Eva's Story" (first-person perspective) first.*

RESULTS

Prior to examining the current research questions, Shapiro-Wilk tests were conducted in order to examine whether the various research variables (Previous knowledge about the Holocaust, scores on the IRI and the performance on the memory tests) are normally distributed. The results indicated that the various research variables deviated significantly from normal distribution ($p < 0.05$). Therefore, the research questions were examined by both parametric and non-parametric analyses that do not hypothesize on the normal distribution of the variables examined in the current study. So as to examine the differences between the two different narrative perspective films in the performance on the memory tests, Wilcoxon analyses were conducted for each group (order 1, order 2). Since the findings of the non-parametric analyses indicated the same findings as the parametric analyses, the findings of the parametric analyses were presented in this section.

In order to examine the first research question of whether significant differences would be found between the two films in the performance on STM and LTM tests, a three-way ($2 \times 2 \times 2$) mixed ANOVA was conducted. The independent variables were the group (as between subject factor), narrative perspective and memory type (as within subject factor). The dependent variable was the performance on the memory test. Additionally, the memory type was entered into the ANOVA analysis as a within subject factor to examine whether the effect of the narrative perspective which was presented in the films differed with regard to the memory type. **Table 2** presents the mean and SD of the performance on the memory tests by group, narrative perspective and memory type.

TABLE 2 | Mean and SD of the performance on the memory tests by group, narrative perspective and memory type (STM, LTM).

		Narrative perspective			
		Third-person perspective		First-person perspective	
Dependent variables	Group	*M*	SD	*M*	SD
Scores on the memory test (STM)	Order 1[a]	9.90	1.65	8.62	2.47
	Order 2[b]	10.12	1.42	8.88	2.42
Scores on the memory test (LTM)	Order 1[a]	9.03	1.90	7.83	2.22
	Order 2[b]	9.08	1.87	7.92	2.17

[a] ***Order 1****: Watched the film clip "Anne Frank" (third-person perspective) first.* [b] ***Order 2****: Watched the film clip "Instagram Holocaust Diary: Eva's Story" (first-person perspective) first.*

The main effect of narrative perspective was significant, $F(1,53) = 17.83$, $p < 0.001$, $\eta p^2 = 0.25$, indicating higher performance in the memory test in the third-person perspective narrative compared to the first-person perspective narrative. The main effect of memory type was also significant, $F(1,53) = 22.44$, $p < 0.001$, $\eta p^2 = 0.30$, indicating a higher performance in the memory test immediately after watching the films (STM) compared to 1 month after watching it (LTM). No main effect of group was found, $F(1,53) = 0.14$, $p = 0.709$, $\eta p^2 = 0.00$, indicating that the performance in the memory test did not differ significantly between PSTs who watched the film clip "Anne Frank" (third-person perspective) first and the second group of PSTs who watched the film clip "Instagram Holocaust Diary: Eva's Story" (first-person perspective) first.

The two-way interactions of narrative perspective and group, narrative perspective and memory type and memory type and group were not significant [$F(1,53) = 0.01$, $p = 0.932$, $\eta p^2 = 0.00$, $F(1,53) = 0.09$, $p = 0.765$, $\eta p^2 = 0.00$ and $F(1,53) = 0.20$, $p = 0.657$, $\eta p^2 = 0.00$, respectively]. Finally, the three-way interaction of narrative perspective, memory type and group was not significant, $F(1,53) = 0.00$, $p = 0.987$, $\eta p^2 = 0.00$.

These results indicated that the performance on the memory test in the third-person perspective narrative was significantly higher compared to the first-person perspective narrative in both STM and LTM memory tests, regardless of the order in which the PSTs watched the films (see **Figure 1**).

The contribution of the PSTs gender, age, their previous knowledge about the Holocaust and their scores on the four IRI subscales to the explained variance of the performance on the memory tests.

In order to examine the second study question regarding the contribution of the PSTs background characteristics (gender,

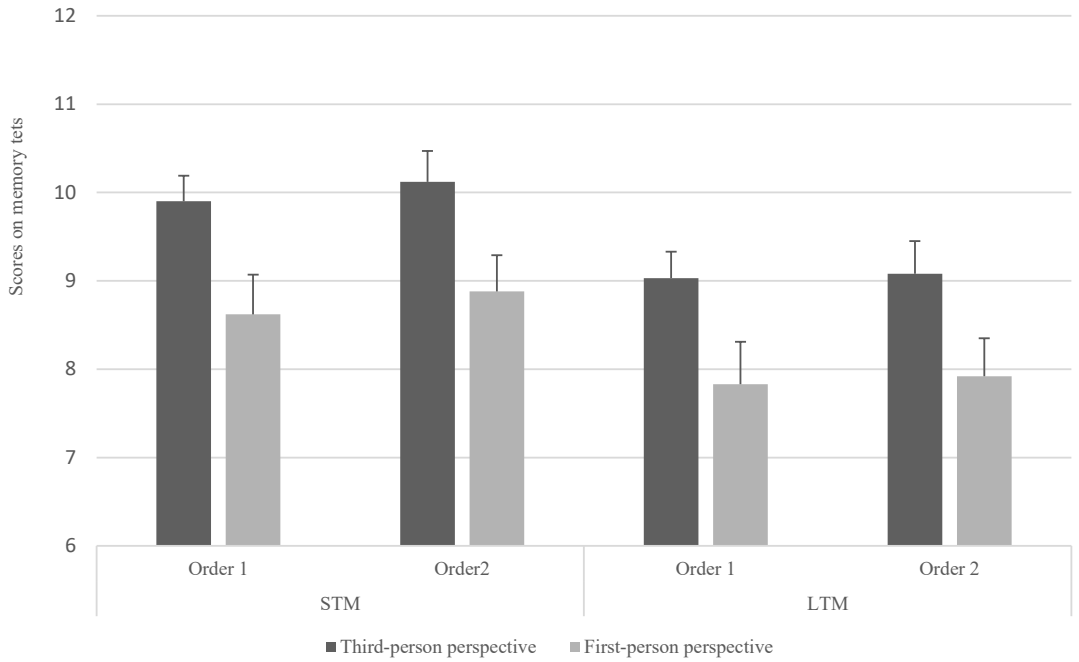

FIGURE 1 | Mean (and SE) of the performance on the memory tests by group, narrative perspective, and memory type.

age), their previous knowledge about the Holocaust and their scores on the four IRI subscales for the explained variance (EPV) to the performance on the memory tests, hierarchical regression analyses were conducted. The PSTs background characteristics were entered into the regression model in the first step. The PSTs score on the knowledge test about the Holocaust and their scores on the four IRI subscales were entered in the second step. These measures were entered into the regression model in the second step in order to examine their unique contribution to the EPV of the performance on the memory tests beyond the PSTs background characteristics. The variables were entered in both steps into the regression model in a stepwise manner so that only variables that have a significant contribution to the EPV of the performance on the memory tests were entered into the regression model in each step. The variables were entered by order of significance. Only variables that have a significant unique contribution to the EPV of the performance on the memory tests beyond the PSTs background characteristics were entered into the regression model in the second step. In this manner, the probability of multicollinearity is likely to be decreased. **Table 3** presents the results of hierarchical regressions for the performance on the memory tests by the PSTs gender, age, their knowledge about the Holocaust and their scores on the four IRI subscales.

As **Table 3** shows, the background characteristics did not contribute significantly to the EPV of the performance on the memory tests in all four analyses.

Regarding the performance on the memory test of the third-person perspective film ("Anne Frank"), the scores on the Personal Distress (PD) subscale contributed significantly 13.5% to the STM performance. The negative β coefficient indicated that as the scores on the PD subscale decreased, the STM performance increased, respectively. Thus, PSTs who indicated lower personal anxiety and unease in tense interpersonal setting, tended to perform better on the STM memory test.

Regarding the performance on the memory test of the first-person perspective film ("Instagram Holocaust Diary: Eva's Story"), the scores on the (PT) subscale contributed significantly 22.7 and 12.2% to the STM and LTM performance. The positive β coefficient indicated that as the scores on the PT subscale increased, both the performances on both STM and LTM increased, respectively. Thus, PSTs who indicated a higher tendency to spontaneously adopt the psychological point of view of others, tended to perform better on the STM and on the LTM memory tests.

Finally, the level of previous knowledge about the holocaust contributed significantly 9.6% beyond the PSTs scores on the PT subscale only to the EPV of the performance on the STM test of the first-person perspective film. The positive β coefficient indicated that as the PSTs previous knowledge about the holocaust increased, the performance on the STM test of the first-person perspective film increased, respectively.

DISCUSSION

This study examines how PSTs process difficult knowledge by comparing their reactions to first- and third-person narrative films containing difficult knowledge, by measuring their levels of empathy, previous knowledge, STM and LTM.

TABLE 3 | Results of hierarchical regressions for the performance on the memory tests by the PSTs gender, age, their previous knowledge about the Holocaust and their scores on the four IRI subscales.

Dependent variables	Steps	Independent variables	B	SE.B	β	R^2	ΔR^2
Third-person perspective (STM)	1	–	–	–	–	–	–
	2	Personal distress (PD)	−0.93	0.32	−0.37	0.135[a]	0.135[a]
First-person perspective (STM)	1	–	–	–	–	–	–
	2	Perspective taking (PT)	2.13	0.51	0.47	0.227[b]	0.227[b]
		Previous knowledge about the holocaust	1.31	0.48	0.31	0.323[b]	0.096[a]
Third-person perspective (LTM)	1	–	–	–	–	–	–
	2	–	–	–	–	–	–
First-person perspective (LTM)	1	–	–	–	–	–	–
	2	Perspective taking (PT)	1.41	0.52	0.35	0.122[a]	0.122[a]

[a] $p < 0.01$; [b] $p < 0.001$.

Both Narrative Style and Content Influence Memory

As expected, findings indicate STM performance to be higher than LTM performance in both groups and in both types of films. What was astonishing, however, was the finding that the third-person narrative film contributed to higher performance in STM and LTM in both groups, regardless of the order in which the films were shown. This finding is inconsistent with the research literature to date that shows that first-person narrative creates a deeper sense of closeness, involvement and bonding with the main character and generates a higher level of empathy compared to third-person narrative (Kaufman and Libby, 2012; Stadler, 2017). Moreover, the increase in the level of empathy of the participants correlates with a corresponding increase in memory (Stadler, 2017).

The type of content of both films may help to explain this unexpected finding. Both films in this study depict the life and murder of a teenage girl during the Holocaust. According to Hakemulder (2000), while the narrative perspective is very influential, the subject matter and content also play a significant role. A negative or traumatic experience can lead to avoidance of conflict and impair the level of memory (Vanderveren et al., 2020). One strategy for dealing with difficult experiences is cognitive avoidance that negatively impacts memory retrieval (Hermans et al., 2005, 2008). Since the subject matter in the films in this study share difficult experiences, this may explain the low level of performance in STM and LTM in first-person narrative compared to third-person.

Personal Distress Lowers STM

The second finding in this study showed that empathy that identifies as personal distress (PD) greatly affected the STM in the third-person narrative film. Higher levels of PD decreased STM performance. PD is "self-oriented" feelings of personal anxiety and unease in tense interpersonal settings and it affects social functioning, self-esteem, emotionality, and sensitivity to others (Davis, 1983). It is common to distinguish between two forms of empathy: cognitive empathy and affective empathy. Cognitive empathy is mentally representing other's thoughts, feelings, and intentions, frequently also called perspective-taking, mentalizing, or "Theory of Mind," and affective empathy is aligning one's own with another person's emotional state (Davis, 1983; Baron-Cohen and Wheelwright, 2004; Wagner et al., 2015). An important factor here is that PD is linked to affective empathy (Wagner et al., 2015). A component of PD is that people fail to maintain boundaries between self and others and need to adopt an avoidance strategy as self-protection (Halperin et al., 2010; Lamm et al., 2016). This may explain the low level of performance of STM in the PSTs with a higher level of PD and is consistent with the first finding of how difficult or distressing content similarly decreases STM more than the perspective of the narrative.

Higher Levels of PT Increase Memory

The third finding in this study showed that a higher level of perspective taking increased both STM and LTM in PSTs watching the first-person narrative film. This finding is expected yet puzzling at the same time in light of the first two findings. So far, we have shown that it was the third-person narrative that led to an increase in STM and LTM as a result of the distressing content and high PD when watching the first-person narrative film. This finding can be explained due to the perspective taking type of empathy that belongs to cognitive empathy. PT is the tendency to spontaneously adopt the psychological point of view of others and compared to affective empathy is characterized by less emotional arousal. This may explain why PSTs, who had a higher tendency to adopt the psychological perspective of others, tended to perform well on the memory tests.

The Link Between Previous Knowledge, PT and STM

The last finding shows in the two groups that there is a positive correlation between the level of previous knowledge, PT and STM. Most of the PSTs (around 80%) presented a high level of performance on the knowledge test about the Holocaust. This correlated to a high level of PT, leading to a high performance in STM when watching the first-person narrative. This finding might indicate that the level of previous knowledge of the difficult content, together with cognitive empathy, in the form of PT, may lead to an increase in STM. In addition, the finding shows that a small percentage of PSTs (around 18%) demonstrated a low level of knowledge about the Holocaust and low STM.

It is reasonable to assume that these findings are due to the fact that subjects with little knowledge about the Holocaust have less interest or motivation to "deal" with details and retain them compared to those having a high level of knowledge, who can be assumed to have more interest and motivation to remember the subject matter (Gruber and Ranganath, 2019; Liebfreund, 2021).

CONCLUSION

The Holocaust is one of the most challenging topics to teach in the classroom because teaching difficult knowledge that requires students to examine and learn from the suffering of others is not an easy task for teachers. Yet, its importance cannot be overstated. Examining how film can be used intelligently to aid teachers in this worthy task is one of the main goals of this study. The findings highlight several ways in which film can be used. When dealing with difficult and complex content, it is worth considering using third-person narrative in order to avoid strong emotional involvement that may lead to rejection and disconnection and thus negatively affect learning and memory. As the findings show, a high level of PD results in a low level of STM when watching a third-person narrative film, a narrative style that to date is commonly assumed to allow more emotional distance between the subject matter and the viewer compared to first-person narrative. In line with these findings, it would therefore be advisable to ascertain the emotional state of the students before teaching content with difficult knowledge, in order to prevent disconnection and rejection of the material and hinder learning and memory. In addition, the findings show that when PT increases, so does STM and LTM. A film with first-person narrative that encourages a higher level of PT in the form of cognitive empathy could balance out a potential increase in PD that would lead to a decrease in STM and LTM. As for the level of previous knowledge about the subject matter, this can increase STM in a first-person narrative film. It is therefore recommended to share knowledge of the difficult content before using film in the teaching-learning process.

DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by the Beit Berl College. The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

MS developed the concept for this original research on difficult knowledge taking inspiration from ZG's previous work on the subject. ZG assisted in the development of the concept. MS wrote the background theory guided by ZG. MS contributed to building the method and analysis of the data. MS and ZG wrote the findings, discussion, and conclusion. Both authors contributed to the article and approved the submitted version.

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