Transmethodology:

An innovative research approach for inclusion studies
for those with Traumatic Brain Injury

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Abstract

Students with traumatic brain injury (TBI) are often marginalized in terms of participation in higher education because of an implicit association of TBI with less academic functioning. The first named author is a Ph.D. scholar who aimed to add her
voice to the voices of others and examine the lived experience of students with the same condition to identify possible supports that would enhance inclusion in higher education. This research was driven by the desire to illuminate both the hidden nuances of personal experience (hence the use of autoethnography) and to highlight the lack of research about educational participation of TBI survivors. The analysis was from both professional and personal perspectives. Through an examination via an iterative and interconnected research process, the authors explored the question, what are the supports for participation and access for students with TBI in higher education considering the first author’s experiences. Traditional research might provide generalizable data but may not facilitate deep illumination of experience and voice. This examination transcended traditional research and comprised autoethnographic and interview-based inquiry. It challenged the research team to consider different perspectives and to interrogate their own interconnections in the same engagement while working towards the same goal. The concept of transmethodology will be discussed regarding the development of multiple perspectives that can assist in transgressing the common divisions in the theory and practice divide and explores knowledge of marginalization regarding participation for students with TBI. This paper argues for the importance of innovations such as transmethodology when researching deeply personal phenomena.

Keywords: Lived Experience-Traumatic Brain Injury- voice-onto-epistemology-transmethodology-Higher education

1 Introduction

Traumatic Brain Injury (TBI) is a unique trauma, which is defined as a “bump, blow, or jolt to the head that disrupts the normal function of the brain” (Brainline, 2017) and can cause a range of physical, cognitive, and emotional consequences manifesting as
behavioural outcomes for an individual. These outcomes can vary, depending on the location and severity of the trauma (Sherry, 2006). They often alter an individual’s personality (Cloute, Mitchell, and Yates, 2008), and this makes traversing different environments challenging. The most prevalent effects of this condition are sometimes hidden, and yet it can still have a debilitating effect. There is a predisposition of valuing the knowledge of caregivers and healthcare professionals in relation to people with TBI over the voices of survivors themselves. As a result, the complexity of difference can be ignored and understandings can remain normative, which are evident even now in everyday assumptions about those of us who live with TBI (Shiels, Kenny, Shiels, and Mannix-McNamara, 2021). Not recognizing the lived experience of these individuals further marginalizes them.

In this context, students with TBI are underrepresented in higher education within the broader category of students with disabilities. A report by the association for higher education access and disability stated that in the year 2017/2018, only 4.1% of undergraduate students and 5.8% of the number of postgraduate students with disabilities in Ireland were registered to the group categorized as neurological/speech-language, which encompasses students with TBI (Ahead, 2018, p. 18). These students who enter higher education are often expected to perform, participate, and learn in environments and formats that are designed for neuro-typical students. This is due to a lack of awareness about the barriers these students face, such as slower thought processing, challenges to concentration and limited ability to multi-task. The reality is that the lack of flexibility in the provision of educational supports, and services for students with TBI has real impacts, and these impacts are borne by students who are contending with disability outcomes.
Lack of differentiated support for diverse learners in higher education settings to facilitate participation, adversely affects students’ ability to engage in these settings.

In line with the United Nations Convention on the Rights of Persons with Disabilities (Callus, & Camilleri-Zahra, 2017), the voices of these learners could inform the development of inclusive practices/methodologies within higher education. Recognition of the challenges facing an individual with TBI is essential, as is the preservation of hope, and belief in recovery potential. As a person living with TBI, it was hope, persistence, and family support that facilitated the first author’s recovery and made the continuance of her education possible. Her status as a doctoral student and position as a TBI survivor offered a native and insider perspective providing a unique contribution to this unexplored area of inquiry. Self-identity as a native member of the TBI community did not mean simply “playing the native card” through adopting a noncritical stance of the “insider” position (Jacobs-Huey, 2002, p. 791). Rather, inhabiting and professing a researcher’s native status may be done as both a normalizing strategy that also emphasizes uniqueness (ibid). The first author turned to autoethnography (Phase 1) complemented by semi-structured interviews (Phase 2) in a transmethodological design to interpret, collect, and analyze data in a generative manner. Research has been conducted with students with disabilities in higher education in Ireland (Shevlin, Kenny, and McNeela, 2004) and internationally (Majoko, 2018) with the agenda to widen access, and this type of research has revealed structural inequalities that hinder participation in higher education, but research remains neglectful of the personal experience of those living and learning with TBI. Given that students with disabilities are a heterogeneous group, research that focuses more specifically on neurodiverse cohorts, as in the study presented here, holds the potential to reveal specific challenges (including affective and structural obstacles) to
participation and suggests types of fine-tuned adaptations that might be useful in establishing an inclusive environment.

1.1 Context

There are personal and environment related contexts that have influenced this study. The first author, at the age of nineteen, experienced a life-threatening and debilitating road traffic accident that left her in a coma and completely incapacitated. The road to recovery has been fraught with challenges that have been exacerbated by structural and affective inequalities. It is the belief of the authors that societal participation is core to the reestablishment of oneself post acquiring a TBI. The first author was determined to not only engage in societal participation but also to continue her education, which had been violently interrupted by the accident. Despite being told many times by doctors, peers, and lecturers/supervisors that this would no longer be possible, she has successfully and determinedly pursued this goal. However, she was not prepared for the rigidity of higher education systems, and as a result, had to employ innovative resourcefulness to pursue her goals. This led her, with the support of the co-authors, to design a doctoral study that would look deeply at this experience and the experience of others to both theorize it and to advocate for authentic inclusion. This study is based upon the premise that despite the rhetoric of inclusion, higher education is not always hospitable to those with TBI, but also that authentic inclusion is possible and that there is a need for meaningful awareness-raising of neurodiversity and of TBI specifically in the higher education setting.

1.2 Aim of paper

This paper aims to deal with the matters in this special issue concerning entanglements, borders, and bridges between ideas, concepts and areas that are often viewed as separate, and distinct elements in research processes. Springgay and Truman
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(2018) posit that “We need to shift from thinking about methods as processes of gathering data towards methods as a becoming entangled in relations” (p. 204). Given that day-to-day life for the first author and students with TBI is personal and intertwined in relations, a method that addresses this intricacy of the research process was needed. This paper outlines how a transmethodology, which is complex relations between the field, the methods, and the theoretical approach (Khawaja & Kousholt, 2021, p. 4), facilitated the development of a new onto-epistemology regarding knowledge production concerning the embodied experience of participation of students with TBI. This method also supports the development of a transformative type of research approach.

2. Transmethodology

Methodology in research is typically understood as the separation between epistemology, ontology, and method. However, this research seeks to destabilize these boundaries and signals a crossing of traditional borders in research. Transgressive research styles to knowledge production can provide a lens that allows researchers to analytically focus on phenomena vis-à-vis multiple theoretical perspectives and numerous interconnected empirical methods (Khawaja and Kousholt, 2021, p. 3). Transmethodologically orientated researchers grapple with the superiority of the traditional data generation methods and challenge them to include viewing, sensing, making meaning of, and materializing concurrently as an emergent and integrated part of the compressive process of knowledge production in research (Khawaja and Mørck, 2019). Complex and transgressive research processes make “all the categories of humanist qualitative research problematic” (Lather & St. Pierre, 2013, p. 630). Thus, this research calls for a rethinking of research methodology to allow for emergent methods and theoretical frameworks. In this context, a theory is not treated as the single element that
makes up a framework that is used to understand, explain, or predict phenomena, but instead, it is viewed as a constitutive element, interacting with the researcher as well as the researched. This approach embraces complexity, challenges the familiar and taken-for-granted assumptions of theory and method, moving beyond the restrictive nature of traditional research by capturing the personal and social embedded nature of participation for students with TBI.

2.1 Paths towards new understanding

Initially, the first author wanted to explore her personal experience of TBI, but as her research progressed, it became apparent that she had many insights to offer concerning strategies that helped her overcome the barriers she faced as a researcher and as a doctoral candidate. Consequently, she wanted to shed light on her experience to help others. To do justice to this complexity, she transgressed the insider/outsider dichotomy as she introspectively engaged with her experience of recovery and her life as lived now. The aim was to address the gap in the literature (that effectively eclipses the voices of those with TBI). When reflecting on the research, the authors agreed that the work provides valuable insight into the sheer determination and commitment required to navigate and indeed transcend deep trauma to follow one’s goals to live a full and educated professional life. There was a need for such a transgressive interaction to explore the deeply personal facet of experience for a student with TBI and the social experience in higher education. The authors reflected intensely on the problem of simply adopting a traditional interpretative approach, especially as the first author had traversed a similar experience of recovery and participation in higher education. Traditional research might give insight into statistical data or generalizability but would not facilitate illumination of experience in a manner that was required here, i.e., deep introspection, that is, reflective, theoretical, and
A traditional interpretative researcher seeks to study and make sense of culture or community, but they may not acquire the deep knowledge of a person that has lived the experience.

A dual role as a participant and a researcher allowed the first author to convey what it means to be a student with TBI in Ireland whilst also embracing the broader structures of her cultural life. By “outing” her own experience as the subject of inquiry, autoethnographers reject “claims to objectivity”, value “subjectivity and researcher-participant intersubjectivity” (Foster, McAllister, & O'Brien, 2006, 2006, p. 47). These two points coalesce to form a stringent justification for the use of autoethnography in this research. This autoethnographic approach is commensurate with a transmethodological design because it crosses boundaries from personal to empirical research methodologies and places the personal experience of the researcher at the center of the process.

Autoethnography involved “turning of the ethnographic gaze inward on the self (auto), while maintaining the outward gaze of ethnography, looking at the larger context wherein self-experiences occur” (Denzin, 1997, p. 227). In her seminal work ‘Final negotiations: A story of love, loss, and chronic illness’, Ellis (1995a), reveals a story of love, death, and identity vis-à-vis autoethnography, enabling the reader to glimpse into the complex, layered, and deeply nuanced accounts of these lived experiences. Her account blurs genres, connecting personal experiences and academic theory enabling others to access this knowledge. In doing so, the aim is to provide deeper insights, understanding and a potential for healing. The first author’s work similarly transcended genres, connecting her personal experience as an individual with TBI participating in third-level education to wider theories and literature. It examined its impact on her life and elucidated new understandings, and created awareness for educators, staff, and peers. This knowledge was
produced using a very innovative methodology research style, which is in line with the transmethodological approach.

The first author could not deny her lived experience, nor could she allow her own process to dominate the research thus a more fluid and iterative research approach was desired. After much questioning and interrogation by the authors as to what might be the most appropriate way forward, it was decided that it was necessary for the first author to critically interrogate her own recovery and experience of participation in higher education before engaging with other students with the same condition. The purpose of engaging in such deep autoethnography was to ensure that given the personal and emotive nature of this research that the first author had ‘processed her own process’ prior to engaging with others as it also made her aware of the diversity within the group. The recognition of her experiences and testing of them against the theoretical literature allowed her to understand more deeply her changed self and heightened her awareness of the influence important relationships had on her recovery journey and on her subsequent higher educational experiences. This contextualization also provided a platform to relate the experiences of TBI and their interpretation to the broader discussion of inclusion in higher education. Such a transmethodological approach also facilitated capture of the deeply hidden and emotional aspects of TBI that can be difficult to elucidate with, for example surveys or traditional interviews. Additionally, the professional perspective rendered the first author’s research insightful and enriching on multiple strata, transgressing divisions between theory, practice, and marginalized knowledge. This approach was relevant because this research drew on personal and professional experience with the aim of supporting transformative change in higher education through its impact.
The transgressive structure of autoethnography as a research process is evident because it blurs boundaries with many autoethnographers attempting to speak to multiple audiences, popular and academic, private, and global (Ellis and Bochner, 2000). They accomplish this through writing that is self-consciously aesthetic. As autoethnographers and qualitative methodologists, the authors enhanced the rigor and trustworthiness of this study by adhering to core principles. Even though ethnography is constructed “through research practices, these practices can be personalized from “science” by using other methods such as “literature, creative arts, introspection, and memory work” (Richardson, 2000, p. 254). Thus, by using transmethodology within academia, the learning space could potentially be opened up to a group of diverse and marginalized students. Richardson’s (2000) five aspects that autoethnographers follow, transcend the boundaries of traditional research validity discourse, and these include aspects such as “substantive contribution”, “aesthetic merit”, “reflexivity”, “impact”, and “expression of a reality” (p. 254). Even the data sources broaden from the traditional, for example, in the use of personal photographs. Referring to a person’s photographs awakens the “epiphanies –those remembered moments perceived to have significantly impacted the trajectory of their life” (Ellis, Adams and Bochner, 2011, p. 275) and adds to the lived quality and introspective nature of experience. Attention to the authenticity of these processes helped crystalize the validity of this research. The metaphor of a crystal (multi-sided and illuminative) is used because its shape serves better to explain the complexity of interpretive qualitative research (Richardson & St Pierre, 2000), and supports a dynamic, relational approach within autoethnography. It traverses the science/art continuum so to embrace this complexity. The authors’ interest in transmethodology rests on its flexibility as a research approach in the social sciences concerning matters that are both personal and social.
Approaches in social sciences are drowning in methodologies that are formulaic with strict procedural adherence. Conversely, the approach here is malleable in its form by being open to introducing a wide range of literature that attends to transgressive and emergent conceptualizations. It went deep enough to capture the messy and embodied experience of those who live with TBI. Goodall (1998) argues that “good autoethnography strives to use relational language and styles to create purposeful dialogue between the reader and the author. This dialogue proceeds through close, personal identification-and recognition of difference-of the reader’s experiences, thoughts, and emotions with those of the author” (p. 7). It enhances reflexivity, and when autoethnography is good, it strikes a chord with the reader, and they make comparisons with their own lives.

Haug (1987) developed the methodology of memory work as an empirical and autoethnographic gateway to critically explore the social structure, power relations, and inequalities. This method is premised on collectively generating and utilizing autobiographical memories and could transform participation and learning for students with TBI. The distress for students following their trauma means that they suppress many memories around their accidents and subsequent therapies. When they had similar experiences, but in different contexts, they experienced similar emotional responses and memories. This transmethodology acknowledged subjectivity, and it was cathartic because it freed the first author and students with TBI to acknowledge their feelings about their lives and recognize the inability to separate themselves from the research. Transmethodological researchers also report these hidden types of knowledge that would not be uncovered with traditional research or maybe one process of knowledge production. Transmethodology and constant reflection, articulation, and re-articulation of power dynamics in society can be a transformative research method. It can bring about change.
This research approach went deep enough to capture the complicated and sometimes chaotic experience of those who live with TBI. Everyday assumptions of typical able-bodied individuals were transcended because the voice of the first author and voices of other students were gained, that is, the voices of those who negotiate the environment differently.

2.2 Sensitivity to context

This approach provided a sensitive and research-based appreciation of the people’s lived experiences that focused on the voices of the participants. It enabled a move beyond essentialist and restrictive perspectives to develop an embodied theory of participation. The interrogation of researcher’s personal experiences in conjunction with the perspectives of others was facilitated through this transgressive transmethodology. This study used an approach that valued subjectivity, the insider’s voice. When student’s critical consciousness is enhanced, they can perceive, analyze, and evaluate those aspects of their lived experience more fully. Autoethnography has been critiqued by more traditional social scientists as being insufficiently rigorous and too subjective (Wall, 2008). It can be described as narcissistic and self-indulgent, and therefore not a legitimate form of qualitative inquiry (Sparkes, 2002). However, proponents of this form of research, such as the authors here, would argue differently and indeed would advocate that this form of research is more theoretical and is more authentic as it is culturally, dialogically, and relationally situated. The interrogation of potential researcher bias had been expansively carried out via the first author’s autoethnographic research and was continued via constant and frequent discussions between the research team, which illustrated awareness and sensitivity to context.
Stories recalling moments of cultural engagement are imbued with tales of resistance, success, and failures. Reed-Dahaney’s (1997) idea of “autobiographical ethnography” has the most resonance for the issues being discussed in this narrative (p. 9), as she describes it as a method that can be employed by an autobiographer who places his/her life within a story of the social context in which it occurs. In this case, it was trying to make sense of the first author’s experience of interacting and participating with others in higher education. Narratives stem from dialogue with others and help us shape and provide our past and present experiences, emotions, and behaviour with significance (Spry, 2011). This helped the authors recognize that inclusion in education is best served through self-awareness and awareness of others.

### 2.3 Data sources and analysis

The originality and uniqueness of the study was deepened by the fact that it was framed by the first author, her family, her doctoral supervisors, and former and current students with TBI attending higher education.

Data analysis occurred on many different levels. First, the analysis of the first author’s autoethnography was based on reducing the collected data into smaller and more manageable pieces for scrutiny. The authors engaged in the use of thematic analysis in interpreting and further analyzing the first author’s autoethnography. Autoethnographers aiming to use analytic methods employ thematic analysis to illuminate “the content of the stories and hold within or across stories” (Ellis, 2004b, p. 196). Three themes and sub-themes were identified in the analysis, which captured becoming and unbecoming, the experience of loss, and participation in third-level education.

Seven former and current students with TBI enrolled in higher education degree programs were interviewed (consisted of those involved in undergraduate, postgraduate,
and doctorate degrees). These comprised the empirical phase of this research. They gained the lived experience of participating in higher education as a student with TBI elucidating their obstacles and supports, which were personal, social, and systemic. An interpretive phenomenological approach (IPA) was adopted to analyze the interviews (Larkin, Watts, & Clifton, 2006). IPA has an idiographic focus to gain access to people’s subjective experience of a phenomenon (ibid). The analysis revealed two themes: Internal dissonance and challenges because of TBI and difficulty engaging with a system orientated towards homogeneity. These themes showed different aspects of the data that looked at issues of participation, emphasizing the personal impact of living with TBI and the relational nature of higher education. This IPA approach was adopted because it blended well with autoethnography in that illuminating the lived experience was core to the research aim. Blending the autoethnographic account with the semi-structured interviews also provided a more comprehensive and embodied view of the experiences of the participants. The authors sought to illuminate the entanglements of students’ and researchers’ involvement in terms of participation. In so doing, it recognizes the personal yet situated research method that was required. The point to take away from this, is that research methods that engage with the person need to be aware that a researcher is more likely to get more credible results if the narratives are central to the analysis. The keeping of research field notes/reflective journal throughout the data collection and analysis processes was essential to hold the core thread of the lived experience. When the research team was identifying themes, they protected against researcher bias by recruiting help from colleagues and supervisors. The robustness of the emerging categories was increased by the fact that interpretations of the categories were shared with the research team, and each theme was dissected in meetings prior to final decisions on inclusion.
While autoethnography focuses predominantly on understanding the self within a certain culture, memory alone cannot be a single sufficient tool for collecting data as the researcher’s objectivity can be challenged (Holt, 2003). Therefore, the thoughts from the first author’s memory were supported with official medical records, reflective journals, and interviews with her family, peers, and doctoral supervisors. She kept a reflective journal that kept track of her journey and her reflections on her experiences as she navigated the higher education setting. This self-reflective journal allowed her to continually consider experiences, thoughts, feelings, and new insights throughout the process and made it possible for her to engage more holistically with her development. It also brought into sharp focus development of her awareness of the role that power plays in higher education systemically, in the classroom interactions and in the environment around her. Although “personal memory is a building block of autoethnography” (Chang, 2008, p. 71), and remembering events is a powerful tool indeed, it adds to the validity of a study if there is physical evidence from the researcher’s life. A challenge facing autoethnography within higher education is that it does not have credibility in social scientific research. There is a clear preference for the ‘impersonal’ representation of self in academia (Goodall, 1998, p. 6), which marginalizes students with TBI who may have experience of the topic under investigation and want to use autoethnography as a research approach. To offset some of the shortfalls it was deemed to have in social science research, a transmethodological design was implemented to increase the rigor and significance of this study.

A common practice in social science research in higher education is bracketing. According to Husserl (1999), this is a method to separate the researcher’s natural from the phenomenological attitude (pp. 63-65). Essentially, this means that the researcher
suspends critical engagement with a topic that would bring in the researcher’s own judgments and assumptions into the research. The use of bracketing is not implemented to gain objectivity, but rather a move towards acknowledging our own thoughts in the development of understandings about our research phenomena (Fischer, 2009). The idea of bracketing is controversial and existential phenomenologists who follow the work of Heidegger (1962), and Merleau-Ponty (1945) believe that it is not always possible to fully bracket off one’s presuppositions. It is even undesirable. Heidegger (1962) uses this expression of Dasien to refer to the experience of being that is unique to human beings. He was of the view that humans are involved in a world that is full of things, culture, people, and language and cannot be meaningfully separated from this context or choose to be unaffected by social forces (Larkin et al., 2006). Thus, the epistemology underpinning IPA is that interpretation is needed by the researcher in the interpretation stage, and it was recognized that the position of the researcher as a TBI survivor was well suited to IPA and how this autoethnography was conducted. A way to increase the awareness of one’s interpretations, the IPA researcher needs to keep a reflexive journal to detail the nature and origin of emergent themes.
An innovative use of autoethnography to illuminate the entanglements of students’ and researchers’ involvement in the research process

2.4 Conceptual bases

While maintaining the authenticity of this research, the authors were also cognizant of the disabling culture in higher education. Social constructivism and critical theory were the guiding philosophies of this study. Merging the two perspectives led to the development of critical constructivism, which considers a more critical account of knowledge, that is, the social, cultural, and political information in the teaching and learning process (Bentley, Fleury, & Garrison, 2007). Learning is at times critically dependent on a collaborative process within the educational community that recognizes difference and diversity. It was sometimes a difficult quest to merge these two perspectives in terms of forming a research approach that was reflexive, critical, and political while being respectful of the lived experiences of participants. The authors perceived that this approach links personal to cultural experience. It is a style that the authors also perceived would transcend normative thinking in academia and provide a
platform for deeper and more meaningful findings. From a transmethodological perspective, the data, theoretical concepts, and analysis were intertwined in this research. Theories of embodiment and critical theory supported the crossing of traditional boundaries in research to explicate the participant’s lived experience. The challenges for a student with TBI are multi-dimensional. Hitchens (2012) reflected on the illusory mind-body separation of materialistic perception that illness has taught him and posits, “I don’t have a body, I am a body” (p. 41). This is in line with Merleau-Ponty’s (1962) philosophy that we are and have a body simultaneously. He asserts that it is through our bodies that we experience and make sense of the world (Merleau-Ponty, 1962). The continued dominance of the body/mind dichotomy within the social model of disability occludes personal experiences. A person with an impairment such as TBI could feel trapped in their personal experience, where the “layered residues of oppressive socialization are left to re-inflict their denigrations unhindered” (Watermeyer, 2009, p. 43). Thus, their experience becomes a disembodied one. A research process that does not recognize the complexity of TBI and participation in the higher education environment would downplay the possible benefits of an analysis that is from a holistic, personal, and critical perspective.

The premise of critical theory is to destabilize dominant methods of understanding by highlighting underlying assumptions and making power relations obvious. It opens possibilities for analysis of power, discourse, and historical understandings. In so doing, critical theorists call for reflexivity in research and writing, acclimatizing researchers “to the assumptions underlying their own busy empiricism” (Agger, 1991, p. 111). Adorno and Horkheimer (1992) posit that in the dialectic of enlightenment, “what men [sic] want to learn from nature is how to use it in order wholly to dominate it and other men [sic]” (p. 4). Thus, critical theorists seek to expose potential domination and control behind what
first appears as neutral and progressive. Critical theorists are aligned with emancipatory goals, and their theory reinterprets existing orders and provides alternative ways of understanding and being that release those silenced by conventional theory.

In the same way, critical pedagogists adopt a dialectical mode of inquiry, which would enable the authors to apply socio-political knowledge to the analysis. The process constitutes a social-political application of knowledge, what Giroux calls directive knowledge (Giroux, 2009). The aim of dialectical educational theory is to provide students with a model that allows them to examine the modes of production or the underlying political, social, and economic foundations of society. This approach to learning considers all knowledge as stemming from constant and complex interactions between the evolving individual and the developing environment (Moshman, 1982). It provides students with opposing points of view on a topic where they can discuss and debate. Moreover, it shapes dialectical learning pedagogy where they constantly interact with each other in the development and improvement of arguments from multiple and differing perspectives that could potentially aid personal and social transformation. A research approach like this, with increased reflexivity, enabled the first author to accept her challenges as a TBI survivor and realize the adjustments that were necessary to cope and potentially thrive in higher education. A transmethodological research method applying social constructivism and critical theory is transgressive in that it seeks to develop an awareness of current spaces that can often be places of reproduction and inequality.
3. Transforming trauma: Rethinking inclusion for students with TBI

Trauma and loss are so deeply ingrained in personhood after TBI. This section describes the traumatizing impact of autoethnographic self-exploration and how this research approach can aid in transforming trauma to help students with TBI to cope with their new and sometimes drastically changed lives. Autoethnographic approaches can require a self-fortitude that is not expected of researchers when using other methods. Embracing autoethnography was a struggle and quite challenging for the first author because it was a type of research that was very personal. Inhabiting her new status as a TBI survivor itself was traumatizing. Not only did she have to learn to adjust to her new reality as a changed person, but autoethnography now required her to lower her mask and reveal inner thoughts and experience, which required great courage, honesty, and persistence. Reflecting on these insights, she notes how the emotional and behavioural outcomes of her injury were inextricably linked. The ability to better understand her own experience and learning was in itself, a transgressive act. This research enabled the development of embodied knowledge that recognized all individualized outcomes, which were at times invisible. Trying to cope with these types of challenges adversely impacted her self-esteem and ability to manage her responses to different situations. The denial of challenges proved to be a significant internal barrier to an inclusive educational experience and continued professional development. It certainly appeared to be the case for participants, and the first author’s account illustrated a similar barrier.

Transmethodology in this research considered the way TBI altered the experiences of students in the environment around them. The following section is divided into four
themes, which present a synthesis of the data from this novel research approach. These are loss and internal dissonance, reliance on family post-TBI, assumptions, and caring relationships in higher education.

3.1 Loss and internal dissonance

Loss and internal dissonance was a shared experience and intersected in the data at differing points to emphasize the loss experienced and uncertainty of self. This theme encapsulates participants’ sense-making, negotiating the environment, with physical, cognitive, and emotional outcomes of the injury. Self-perceptions were negative regarding their changed abilities. Participants believed they ought to be able to do simple tasks, but their cognitive and physical functioning were affected with one participant describing themselves as ‘half the person,’ and ‘reduced’. The discrepancy in functioning often created a lack of confidence in abilities, which was illustrated by this phrase ‘I couldn’t understand simple things’, which led to an emotional reaction of self-criticism. How a person adapts and copes with these consequences greatly influences their behaviour. This, often encompassed embarrassment, experiencing frustration, and camouflaging the outcomes of their condition for the participants. The hiding of a person’s outcomes of TBI prevented honest disclosure and full and meaningful participation. It resonated deeply with the first author’s autoethnography. The emotional reaction to the loss was evident throughout the research, exemplified by the phrase ‘why did this happen to me’. The resultant vulnerability called for an understanding of self after TBI that incorporates loss and trauma. This required transgressing of the traditional divisions between ontology and epistemology in research to develop an onto-epistemology that recognized the fluid identity of a student with TBI from a perspective that acknowledged loss. Essentially, the type of research approach presented here provides a method that could significantly
improve the outcomes of a student with TBI in higher education by seeing the student from a holistic perspective considering their personhood and embodied experiences.

3.2 Reliance on family post TBI

The second theme was common and illustrated the importance of family in supporting family members to overcome TBI trauma and to adapt to their altered lives. With the focus on physical recovery post-injury, the devastating consequences for brain functioning and a more fulfilling life post-recovery often become overshadowed. The work of recovery/rehabilitation after injury was often left to the family, and this impacted how the participants survived, coped, and lived. In one participant’s case, her dependence in relation to her functioning was illustrated when she stated her mother ‘had to do everything for me’, and responsibility was delegated amongst family members to help her rehabilitate and adapt to life altering change. Reliance on family was illustrated by the phrase ‘pillars in my recovery’ in learning to drive, which echoed the first author’s autoethnography. Most notably, this type of informal personal support from a family member facilitated a participant’s return to higher education, which also resonated with the first author’s account. One of her doctoral supervisors stated that she ‘would not be where she is today’, without this personal support after TBI. Outcomes in higher education could be improved for students with TBI by providing both personal support, and support in the university. This family support could potentially aid a student to make the difficult transition to higher education. Caring for a member of the family who sustained TBI can be very taxing and takes a large toll on the emotional and psychological functioning of the family member, which was evident in the first author’s account. Therefore, it is crucial that services be made available to both the survivors and family members, and this will
help sustain students with TBI so that transitions and participation in higher education are made easier.

3.3 Assumptions

This third theme concerned a dimension of the data that is salient in phases one and two, and it crossed different settings (home, community, rehabilitation centers, and higher education institutions). It is related to an individual’s assumptions about a person/student with TBI. On the one hand, assumptions of dependence prevented the development of self-acceptance and voice, which created a lack of disclosure. Then on the other, wrongful assumptions of independence also hindered the development of a student’s self-awareness of the challenges they faced participating and accessing higher education. This assumption gave rise to a lack of honest communication and awareness about the challenges they faced. The first point perpetuates the assumption of physical impairment/disability with lack of ability or capacity to answer a question, and it echoed the sentiment of the first author’s autoethnography. The latter point also resonated with the first author’s autoethnography, where there was an assumption among educators/service providers, that as a student with TBI in higher education, the first author had the capacity to communicate her needs to educators clearly, which was not always the case. It fluctuated. These assumptions were aggravated by the covert position adopted by some participants because of the ‘internal struggle’ experienced upon disclosure of TBI. Neurodiverse students must weigh up the risk of making others aware and possibly being stigmatized or facing harmful encounters. Wrong assumptions had a negative impact, with distress and fear of future reactions upon disclosure being the result. Improvement of the outcomes for participants was achieved once they developed trust and strategies to help them cope with the consequences of TBI for them. Forming relationships and having a
sense of belonging in the college, in some cases, was extremely difficult because of the challenge of trying to find a balance between life in third level and the consequences that TBI had for them. Self-care and collaboration could potentially improve this practice for a student with TBI, whereby they could engage to their full potential.

### 3.4 Caring relationships

Caring relationships intersect across the data, supporting and recognizing the individual traits of each student with TBI. It is an illumination of the relational dimension and interdependencies in higher education. It is not easy to live with TBI. However, from an affective perspective, recognizing and meeting the needs of participants supported their motivation and enabled their involvement in the classroom and socially. Being treated with care increased the self-awareness of participants and acted as a motivation to develop strategies to participate meaningfully and successfully in higher education. Moreover, working collaboratively with fellow students helped ‘attention and motivation’ of the participants. This resonated with the first author’s autoethnography. Collaboration with peers developed a support network to aid with help-seeking and challenging oppressive interactions. One participant feared being perceived as stupid because of her speech, but the support she received from others helped her cope with negativity. Furthermore, another participant spoke to the benefit of relationships of care, understanding and trust in doing an examination in college. Awareness and an understanding between the student and department were important for her as an individual with unique challenges to contend with. Therefore, care and support increase personal development, reducing maladaptive behaviors of a student with TBI. Care can be understood as an ethical use of power, where power relations are involved in relationships, but it is employed in a supportive way (Noblitt, 1993). Mannix-McNamara (2010) postulates that this ethical use of support leads
to the development of strong educative relationships. This care nurtures and supports a student with TBI to participate more holistically and effectively, whereby the outcome is substantively better.

4. Transmethodology as a method for supporting engaged pedagogical approaches with students with TBI

As the transmethodological approach developed, it became clear that in much the same way that the autoethnographic style supported the first author to better understand her lived experience of disability and navigation of the higher education environment, an autoethnographic approach like the method outlined here can also support students to better understand their embodied experience. Thus, this approach can support their learning styles and how they cope within the higher education environment. Furthermore, educators can assist students in transforming their current perspectives through a process of becoming more critically aware of how their assumptions influence the way they perceive, understand, and feel about the world (Mezirow, 1991). Even though it is hard, it can be transformative for students with TBI to engage in critical reflection and unpack their own assumptions about their participation and access because otherwise, a person risks remaining trapped in unexamined judgement. Remaining in an unreflective position can render stories not credible. Thus, this research is credible by stating the position of the researcher as a TBI survivor. It is worth noting that this is tough terrain for students with TBI who already live with trauma, who have to disclose a personal condition in order to get support and risk the carelessness of others. Despite these obstacles, personal reflexivity, and navigation of the access of a hegemonic and ableist system, can raise critical consciousness of oppressive forces.
In opposition to the banking approach to education, Hooks (1994) makes the case that literacy is more than being able to read and write. It also allows those who experience discrimination to develop a critical consciousness of their oppression. Engaged pedagogy starts with the postulation that we learn best when there is an engaged environment (Hooks, 2010, p. 19). Therefore, creating a caring and engaged pedagogy in higher education would provide better access for students with TBI and other marginalized learners by raising critical consciousness, awareness of neurodiversity and TBI. In this context, Hooks (1994) advocated that universities encourage students and teachers to transgress divisions and seek ways to use collaboration to make learning more relaxing and exciting. This point draws our attention to the transformative possibilities of autoethnographic methods as part of an engaged pedagogical approach, whereby this approach turns students into active participants in their education. In doing this, it highlights the emancipatory potential of education. Learning should engage the whole person, that is, the mind, body and soul, connecting the “… will to know with the will to become” (Hooks, 1994, p. 19).

An engaged pedagogy creates a mutual relationship between teacher and students that establishes trust, commitment, and active learning. By employing both a transmethological design and an engaged pedagogy, reflection and deep learning could be supported for students with TBI. Reflecting on their own learning could potentially support affective and other challenges. It is more demanding than traditional methods of teaching, as it requires teachers to be actively involved and ‘committed to a process of self-actualization that promotes their own well-being if they are to teach in a manner that empowers students’ (Hooks, 1994, p. 15). She was of the belief in the importance of reflection and action in education to build trust and community. She suggests that teachers
help students connect their experience to academic material to make learning meaningful, authentic, and applicable.

Thus, collaboration can be beneficial for the participation and learning of students with TBI. This point is illustrated in this transmethodological method. Collaborative learning is premised on the socio-cognitive paradigm and advocates student involvement in the process of knowledge construction, which results in deeper learning and understanding (Dochy, Segers, Van den Bossche, & Gijbels, 2003). In successful collaboration, students engage in shared knowledge construction, discover, and organize different perspectives, commit to joint goals, and determine together their collective tasks (Blumenfeld, Marx, Soloway, & Krajcik, 1996). Essentially, Vygotsky (1994) recognized that social learning and culture are an integral part of cognitive development. This underscores the importance of educative relationships in helping a student with TBI develop as a learner.

“Urging all of us to open our minds and hearts so that we can know beyond the boundaries of what is acceptable, so that we think and rethink, so that we can create new visions, I celebrate teaching that enables transgressions-a movement against and beyond boundaries. It is that movement which makes education the practice of freedom” (Hooks, 1994, p. 12). The point we can take away, is that inclusive research approaches, such as in the paper here, should be adopted by educators who want to instill a sense of creativity, enjoyment opportunities for reflection in academic work. This would also provide a research approach that would address diversity and the ‘one size fits all’ understanding of participation for students with TBI. In this context, transformation for students with TBI will not happen overnight, but it is the constant reflection on one’s contextual experience that is provided by transmethodology that can make transformation possible. It opens up a
space where this can occur. Autoethnography is both used part of an engaged and as part of a transmethological approach. This transmethodological research, offers a place for autoethnography within academia, and especially to marginalized learners in seeking to utilize voice get to the heart of their educational challenges.

The first author’s identity and engagement with her experience was necessary and provided the research team with a great opportunity to gain access to the subjective experience of the participants and make recommendations about potential supports in higher education. For example, self-determination theory aims to understand human motivation and when it is applied to education, it promotes the active engagement of students, a valuing of education, and confidence in their own capabilities and learning (Deci, Vallerand, Pelletier, & Ryan, 1991). However, the authors believe that this theory by itself will not understand the motivation of a neurodiverse student with TBI. It cannot be fully understood without considering the impact of the structures in higher education, combined with indeed the agency of a student. A study such as this, was premised on personal epistemology, challenging scholarship, and scientific inquiry in higher education by embracing the person and uncertainty. It incorporated theoretical and methodological implications of having a disabled/neurodivergent identity. This relates to how identity-positionings that are neurodiverse and not normative can be marginalized in higher education, often shaping participation, discourse, and access.

Lack of understanding and awareness from others emerged during the first author’s autoethnography and prompted a rethinking of participation that is cognizant of the intersecting circumstances that comprise participation and access for students with TBI. Oppong’s (2014) integrated model of human action and behaviour helps illustrate the intersecting circumstances that comprise participation for students with TBI. He
postulated that an integrated model of social cognitive theory as proposed by Bandura (1977) can be nested in the structure suggested by Giddens (1984). This approach offers a lens that would enable the development of a more inclusive environment, which includes structures in higher education and also personal/psychological factors. This methodology not only has the capacity to develop the types of overlapping conditions that constitute participation in higher education but also to transform through careful attention to care, interdependence, and agency.

4.1 Future research

The data suggest issues in need of further research. There is a dearth of research and knowledge about the participation and access issues for students with TBI. Simultaneous insights from personal and professional perspectives into educator and student experiences of teaching and learning could help illuminate factors that would support better engagement and participation.

An investigation of the role that power plays in the environment of higher education is needed, how it shapes the learning of students with TBI. A transformational leadership style should be employed by educational leaders to develop an inclusive environment for students with TBI. Transformational leadership is not an alternative option to transactional leadership, but rather, transformational leadership enhances/strengthens transactional leadership (Bass and Avolio, 1997). A transformational leader can bring about greater changes in an organization by building based on transactional leadership (Howell and Avolio, 1993). In the context of future research, it is believed by the authors that a study is warranted to investigate the need for a transformational leadership style in the development of inclusion of neurodiverse students or employees in the workplace.
Reflecting on inclusive practices, an educator needs to be made more aware of the supports that would help a neurodiverse student. The supervisor is trusted with leading the overall research project for the benefit of the student, the university, and the global community (Reguero, Carvajal, Garcia, & Valverde, 2017). Therefore, it is important for universities to constantly professionalize doctoral supervision (ibid). A broad investigation that examines how inclusive participation could be made more accessible for students with TBI would help significantly with the development of inclusive practices for neurodiverse students with TBI. The authors posit that more awareness regarding brain injury should be created by continuing research on the subjective, and hidden aspects of the injury. It would also examine the organizational culture and explore issues such as, how can the emotional ability of a student impact their self-efficacy and their ability to conduct work collaboratively with peers or educators. This is a topic that could be examined encompassing institutions internationally and across Ireland.

4.2 Conclusions

In this paper, the authors have engaged with another way of exploring a personal topic, such as this, that is in contravention to the epistemological rigidity of traditional paradigm-based methodologies that underpin positivist research designs, which often bolster research in higher education. It examined the use of transmethodology as a research approach in gaining access to knowledge pertaining to supports that could potentially enable the participation of third-level students with TBI. There was multiple layers of data collection and analysis, which aligned with the transmethodological approach.

While research methodology is usually understood as a nexus of epistemology, ontology, and method, our transmethodology went further in this study and crossed the
traditional boundaries separating theory, method, and analytical approach. This transmethodological research approach demonstrated innovation and an integrated framework of narrative, literature, analysis, and theory. With the first author at the center of the research, this turn to narrative revealed insightful data that provided a deeper, authentic, and embodied analysis.

The insights and findings gained led us to advocate for the recognition of a student’s personhood, especially in the case of a student with TBI. The experience of TBI can affect a person/student in profound ways and requires dynamic and innovative approaches to research, education, and practice. By allowing methodological flexibility, deeper understandings were produced and validated by the multiple number of perspectives used. The approach taken here is like the transmethodological stance adopted in the study by Vandermause (2012), in that the study was personal, while being conscientious about rigor. Indeed, the authors advocate the use of systemic and rigorous processes to scientific inquiry while being open to transmethodological approaches. Moreover, this maintains the importance of the personal element, stories and transmethodology when researching complex and deeply personal phenomenon.

The approach we adopted brought personhood to the fore, recognized, and valued neurodiversity among students with TBI. This transmethodological approach clearly identified the unseen non-cognitive barriers and supports that those students with TBI experienced. Adopting this framework, the authors emphasized diversity, heterogeneity and sought to create space for critical dialogue within third-level education regarding access for students with TBI. It highlighted the role that impairment plays in the lives of survivors of brain injury. This approach challenges established and dominant ways of conceptualizing marginalized students. It also offers the opportunity to give voice to
experience from one’s own perspective, increasing awareness and creating more social integration and inclusion in the educational environment.

This research elicited dimensions of human existence that were usually taken for granted in everyday life. These encompassed the embodied, sociocultural, temporal, spatial and intersubjective contexts that made up students experience in higher education. Facilitating student voice is an integral aspect of constructing discourse of respect, empowerment, and citizenship. It has been argued that curricular development should move towards a more democratic process and co-construction, with collective responsibility for developing solutions, which was significant in education discourse. This transmethodological design facilitated this for students with TBI such as the first author.

Using autoethnographic research in an innovative way provides novel and new ways to understand, include students with TBI and diverse students who have experienced trauma and learn differently. We would argue that the courage to participate in higher education is laudable, our participants approached it with innovation, creativity, curiosity, and courage. We would further argue that it is appropriate to meet them with research approaches that are similarly innovative, creative, curious, and courageous.

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