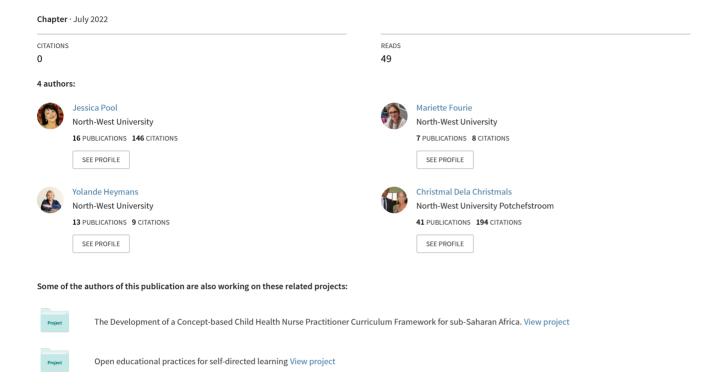# The potential of Scholarship of Teaching and Learning research towards transformative pedagogies in higher education: An approach to ethical mindedness

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Jessica Pool
North-West University
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North-West University
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Yolande Heymans
North-West University
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Christmal Dela Christmals
North-West University Potchefstroom
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CHAPTER 1:

The potential of Scholarship of Teaching and Learning research towards transformative pedagogies in higher education: An approach to ethical mindedness

Jessica Pool,
Centre for Teaching and Learning, North-West University

Mariëtte Fourie,
Centre for Teaching and Learning, North-West University

Yolande Heymans,
Centre for Health Professions Education, Faculty of Health Sciences, North-West University

Christmal Christmals
Centre for Health Professions Education, Faculty of Health Sciences, North-West University

Abstract

Scholarship of teaching and learning (SoTL) presents the vital intersection between teaching, learning and research in the Higher Education context. However, ethical requirements applicable to SoTL research are mistrusted and remain a challenge. This results in lecturers not engaging in SoTL research towards transformative pedagogies. In addition, clear guidelines for ethics in SoTL are lacking. In this chapter, the authors critically reflect on ethical mindedness specifically relevant to SoTL research. The scientific gap identified in the literature implies the provision of more guidance on ethical

issues to enhance SoTL research. Applying ethical mindedness to SoTL research may provide a stronger coherence between the ethical application process and the scientific approach of SoTL. The study followed a qualitative research approach using design thinking as research methodology. This chapter provided ethical principles and guidelines to the wider SoTL community, including academics, academic developers, scientific committees and RECs to close this gap. Guidelines included aspects such as how to address the power relation in SoTL research, important aspects of informed consent and the process, autonomy to choose freely to participate or not, selection of participants, benefits and risk ratio, protecting participants and the integrity of the research as well as safeguarding data.

Keywords: Ethics, Higher Education, Pedagogies, Scholarship of Teaching and Learning, Transformation

Introduction and background

The identity of an academic as a university teacher is embedded in knowledge consumers, producers, and disseminators. This implies that the work of an academic involves being a university teacher and a researcher (DHET, 2018). According to the framework for academics as university teachers, these roles should not be in competition as they are equally important and interdependent (DHET, 2018). Literature suggests a lack of ethical mindedness amongst Scholarship of Teaching and Learning (SoTL) researchers as regards to ethical guidelines that apply to scholarly research. These guidelines are necessary as SoTL research adheres to the same scientific and ethics criteria as all disciplinary research (Pool & Reitsma, 2017).

In addition, a misconception related to SoTL context and specific approach of SoTL research by non-educational research ethics committees (RECs) is evident (Stockley & Balkwill, 2013). During an SoTL writing retreat offered as a professional development opportunity to academics at the NWU, these

gaps were confirmed by SoTL participants. Consequently, an Ethics in SoTL research workshop was conceptualised, developed, and presented. The purpose of this workshop was to focus specifically on the ethical issues related to the ethical considerations during each step of the SoTL research process and to create a sense of ethical mindedness. The envisaged outcomes of this workshop were to develop guiding principles for applying ethical mindedness in SoTL research. The workshop created a space where academic developers, academics and experts in RECs collaboratively and critically engaged in ethical mindedness in SOTL research. This led to valuable insights and a shared understanding of ethical principles in SoTL research that might lead to more SoTL research outputs. Providing collaborative spaces and professional development opportunities allows for academics who are passionate about engaging in a scholarly approach to teaching and learning in higher education (HE) to explore and discuss uncertainties and some burning issues and challenges in SoTL research.

The transformative potential of SoTL in higher education

This section emphasises the importance of engaging in SoTL research towards transformative pedagogies in HE. The development of SoTL in HE institutions in South Africa emerged from 2004 ISSoTL conference (ISSoTL, 2004). Subsequently, an increase in the number of SoTL initiatives is evident in South Africa and also at the NWU. SoTL is supported by the Department of Higher Education and Training (DHET) and is an integral part of the framework for academics as university teachers (DHET, 2018).

SoTL provides an opportunity for academics as university teachers to conduct scholarly inquiry into teaching and learning processes in HE contexts. The overall intention of SoTL is to focus on expertise in HE teaching and learning,

thus improving student learning and enhancing educational quality through evidence-based and methodologically sound research (Huber & Hutchings, 2005; Mckinney, 2007, 2012). Kreber (2013) postulates that SoTL contributes to the broader vision of university teaching through the commitment to serve important interests of students, not only for their academic learning and personal flourishing but also for creating greater social justice in the world.

In support of Kreber (2013), the draft Ministerial Statement on the implementation of the University Capacity Development Programme (UCDP) advocates for transformation and social justice in HE. The Ministerial Statement further argues that promoting SoTL is one example of a vital intersection between teaching and research because it provides an opportunity for academics to conduct scholarly inquiry into teaching and learning processes in HE contexts (Department of Higher Education and Training [DHET], 2019). Therefore, research and teaching development should be viewed as equally important imperatives for the success of the HE system (Department of Higher Education and Training [DHET], 2019).

In the context of HE, and specifically at the NWU, a scholarly approach to student success is regarded as necessary to ensure pedagogical best practices (NWU Teaching and Learning Strategy, 2021–2025). This implies the adoption of pedagogical best practices, as opposed to practices aimed only at the transmission of knowledge. However, pedagogical best practices have been challenged by the COVID-19 pandemic. In the context of remote online teaching and learning, best practices in HE from a student, lecturer and professional staff perspective are needed to enhance the virtual teaching and learning experience. It is required of academics as university teachers to engage in pedagogical innovation regarding teaching and assessment strategies in their classrooms. SoTL research could enable pedagogical innovation, as it encapsulates reflection on and transformation of teaching

and learning practices and, therefore, provides a vital intersection between teaching and research. This also aspires to the overall theme of this book – "A scholarly approach to student success in HE within the context of one of the subthemes: Academics as university teachers".

Beyond the transformative potential of SoTL in higher education: Adopting an ethical mindedness

In reaching a shared understanding of the ethical implications for SoTL research, this section elaborates on the possible reasons for engaging in SoTL research towards transformative pedagogies in HE being absent. Amongst others, SoTL researchers are of the opinion that scientific evidence required by REC's are hindering SoTL research (Cleary et al., 2014; Reed, 2007; Stockley & Balkwill, 2013). SoTL researchers find that the ethical criteria are incompatible for SoTL research and, therefore, are lacking trust in the ethical approval process. The literature also reports that, because of the misconception about SoTL research, ethical clearance is perceived as perplexed, tedious, and not applicable to SoTL research (Linder et al., 2014; Stockley & Balkwill, 2013; Hally & Walsh, 2016).

The authors argue that providing practical principles and clear guidelines for ethics in SoTL research may address the misconceptions and confusion about ethics in SoTL research. This dilemma is confirmed by Pool and Reitsma (2017:39), who stated, "[d]espite expanding engagement in Scholarship of Teaching and Learning (SoTL), clear guidelines for ethical criteria for SoTL, and the implementation thereof remain limited". In their paper, they critically reflected on how ethical criteria applicable to SoTL impact lecturer engagement in SoTL. It is for this reason that the authors make suggestions on how to support SoTL research without losing the scholarliness and the impact it has on innovation in teaching and learning.

Therefore, the authors acknowledge a lack of evidence of principles and guidelines for ethics in SoTL research. In this chapter, the authors critically reflect on ethical mindedness specifically relevant to SoTL research. The scientific gap identified in the literature implies the provision of more guidance on ethical issues to enhance SoTL research. Applying ethical mindedness to SoTL research may support a better alignment between the ethical application process and the scientific approach of SoTL. This chapter aims to provide ethical principles and guidelines to the wider SoTL community, including academics, academic developers, scientific committees and RECs to close this gap.

Against this background, this study aimed to address the following compelling research question:

What principles and guidelines can be developed to address the misconceptions and confusion about ethics in SoTL research and to establish a sense of ethical mindedness?

Moreover, the aims of this research was to:

- explore the potential of SoTL towards transformative pedagogies in higher education;
- develop an understanding of the misconception and confusion related to ethics in SoTL research;
- develop principles, guidelines and ethical mindedness related to ethics in SoTL research.

Research methodology

A paradigm is a theoretical framework which is based on a certain set of beliefs which suggests practical frameworks for scientific activities (Bandura,

2001). This study followed a pragmatic approach by applying design thinking (DT). Design thinking is generally defined as a developmental philosophy, which includes a paradigm, methods, tools, and techniques relevant to DT. This study employed a wicked problems paradigm, which deals with the fundamental assumption behind DT. In the context of SoTL research, ethics remains a contested and ill-defined topic, as it relies on many interdependent factors, which often require a deep understanding of the stakeholders involved (Interaction Design Foundation, n.d.). Therefore, the researchers deemed DT as a suitable paradigm for this study. The research method of DT applied in this study refers to reflective practice, and the tools and techniques used to collect data include facilitated focus groups discussions, reflections, brainstorming, mind maps, and feedback sessions (Laursen & Tollestrup, 2017).

Qualitative data was collected during an online professional development workshop. The online workshop entailed information sessions, breakout sessions in groups with feedback, brainstorming, expert panel discussions, and input from scientific and research ethics committees. The study population consisted of academics and academic developers who registered for the workshop, and an all-inclusive voluntary sample was used. Informed consent was obtained in adherence to all ethical criteria. All data sets were transcribed by an independent person, to ensure trustworthiness. Thereafter, the data was thematically coded and analysed to develop an understanding of the misconception and confusion related to ethics in SoTL research as well as to develop principles, guidelines and ethical mindedness related to ethics in SoTL research.

In the next section, the research findings are discussed.

Research findings and discussion

Ethics in SoTL research

Ongoing discourses in the field of SoTL research relate to the following: (i) the need for ethical clearance due to the perceived non-scientific nature of SoTL research; (ii) academics are often of the opinion that gathering information from students in their classrooms is not defined as scientific research and, therefore, does not require ethical clearance; and (ii) SoTL research constitutes no risk.

A critical reflection is provided by Healey et al. (2013) which sheds light on the understanding of both SoTL and ethics: "SoTL is the process of exploring, researching, developing, refining, reflecting upon, and communicating better ways and means of producing, promoting, and enhancing scholarly learning and teaching in ways that are ethically reasoned and inclusive" (p. 24). This definition implies that SoTL research is scientific in nature and affects (i) institutional practice and educational issues, and (ii) human society (Healey et al. 2013).

This, in turn, raises the question as to what constitutes ethical mindedness in SoTL research. The Belmont Report explains the ethical nature of research when involving human subjects: (i) respect for persons, (ii) beneficence, and (ii) justice (Department of Health, Education, and Welfare, 2014). These three Belmont principles are further subdivided into 10 ethical principles for SoTL research, which are discussed in this section. These principles include power relationship; voluntary participation; informed consent; fairness and equity; autonomy and privacy; inclusive selection; risks and benefits; data storage and management. SoTL research at the NWU strives to support the Belmont principles. SoTL becomes ethical when researchers show personal ethical mindedness and function in an ethical climate (Healey et al. 2013) .

It is important to realise that there are always risks involved when conducting research with students as vulnerable participants. Furthermore, the research method applied also determines the risk level – for example, qualitative research methods such as interviews, personal reflection, and/or visual/audio recordings immediately indicate a higher level of risk.

The following section discusses 10 practice-based principles underpinned by ongoing discourses and the Belmont Report. It provides guidelines on how these could be applied to SoTL research. It is important to acknowledge the interconnectedness between the principles.

Guiding principles for SoTL Research

Guiding Principle 1: Power relationship

Occupying the role as lecturer and researcher – each with their own identity, values, and power association – creates an unequal power dynamic, thus a conflict of interest, placing undue pressure on students (Pool & Reitsma, 2017; Schnurr & Taylor, 2019). As authority figures and gatekeepers to students' academic success, lecturers are in a position of trust and power. Lecturers may occupy different types of power, all of which can create a sense of fear. Lecturers have legitimate power, giving them "control" over others. Having coercive power, lecturers may dispense "punishment" to those who do not comply with requests. Having the power of reward implies the ability (implied or real) to pass or fail students. Power is perceived differently, and the power associated with an individual can influence the thinking and doing of others. Students, as a captive audience and essentially "trapped", are dependent on the lecturer for their educational success (Pool & Reitsma, 2017). The unequal power dynamics (perceived, implied, or absolute) and the control associated with this position of power can create

ethical dilemmas such as coercion, undue influence, and a conflict of interest (Feroduk, 2017; Schnurr & Taylor, 2019).

The lecturer-researcher (hereafter "the lecturer") must be ethical when including students as research participants (Feroduk, 2017). An ethics application and supporting documentation should show sensitivity towards and cognisance of the dual role and associated power relationships. Drawing on the risk analysis, possible conflict of interest (actual, potential, or perceived), dual role and power-associated risks and ethical dilemmas must be identified, and mitigating strategies must be included (Schnurr & Taylor, 2019). Strategies can include talking to colleagues to identify "blind spots" the lecturer may have regarding undue influence, coercion, power imbalances, and conflict of interest. Applicants should identify the power relationships present, acknowledge the inherent power differential, and the influence of race, gender, age, culture, etcetera, on the perception of power (Feroduk, 2017).

The use of a knowledgeable neutral, independent person(s) who is not in a position of power is advisable when engaging with the students during any research-related activities (Feroduk, 2017). Informed about the roles and responsibilities of the researcher and the independent person, the neutral person serves as a buffer between the lecturer and the students, which will help to protect the identity of students who are willing to participate or not (Feroduk, 2017). The researcher must train the neutral person(s) before the start of the research, as preparing them would protect the integrity of the research project. To enhance anonymity, the neutral person must remove any identifiable information from the data sets, and the use of a code list is recommendable (Feroduk, 2017; Schnurr & Taylor, 2019). Using online systems and software when collecting data from students can minimise the power relationship (Schnurr & Taylor, 2019). Data analysis should only start

when the lecturer has no further role to play in the teaching and learning of the student.

Guiding Principle 2: Participants should be fully informed

Principle 2 pivots around ensuring that participants are fully informed about the intended research, and based on the information, they can decide if they want to participate (or not) (Feroduk, 2017). Research ethics committees provide clear guidelines on the information that should be included for a participant to make an informed decision. In their ethics application, the informed consent form and applicable supporting documents, researchers should disclose the information participants need to make an informed decision regarding participation (Schnurr & Taylor, 2019). Before the research commences, prospective participants should be informed about the intended research during a research information session (Pool & Reitsma, 2017). It is also essential that participants have access to research-related information for their perusal. Such information could, for example, be uploaded to the learning management system (LMS). An independent and neutral person should facilitate the information session. Using a neutral person would reduce the power relationship associated with the dual lecturer-researcher role (Feroduk, 2017). Students are a captured audience and, therefore, the research information session should be mandatory and not interfere with academic time. Although an independent person facilitates the research information session, the researcher can still inform the participants of the intended research. However, a trained independent person should facilitate the informed consent process without the researcher so as to minimise the student–lecturer power relationship (Pool & Reitsma, 2017).

During the research information session, it is important that participants are informed about the aim of the research and that expectations are elucidated,

highlighting possible risks and risk-mitigation strategies (Feroduk, 2017) and explaining the direct and indirect benefits of participating in the research (Schnurr & Taylor, 2019). The researcher should inform participants that participation is voluntary, that they can withdraw before data anonymisation, and that there would be no repercussions for declining consent. The researcher must elucidate the data collection methods, who will access the raw data sets and provide insight into when the data analysis process starts (Schnurr & Taylor, 2019). The researcher must elaborate on strategies to ensure anonymity and confidentiality and must emphasise that only partial confidentiality can be ensured in the case of focus group interviews. Finally, the researcher should share information on the dissemination of the findings and the roles and responsibilities of the lecturer as the researcher and the independent person(s) (Schnurr & Taylor, 2019).

Guiding Principle 3: Autonomy to choose freely and privately whether to participate

Principle 3 addresses the ethical aspect of autonomy to choose freely and privately whether to participate in the research, refuse to participate, or withdraw from participation at any time during or after the research (provided that the data have not already been disseminated) after being fully informed. This implies ensuring that each student's decision to participate (or not) in the research is voluntary and that their privacy is protected when giving or declining consent. Researchers have an ongoing duty to provide participants with all information relevant to their ongoing consent to participate in the research. Therefore, consent should be maintained throughout the research project.

There is a specific way in which providing informed consent should take place for a face-to-face and online setting, allowing for autonomy. This could differ according to the specific REC requirements. Also, an important aspect to

consider relates to the time that elapses between the information given about the research and when informed consent is obtained. Therefore, sufficient time should be allowed for students to provide consent to freely and privately choose to participate.

All information pertaining to informed consent – including information videos, etcetera – should be uploaded to an LMS for the students to access, providing them sufficient time to familiarise themselves with the research. During the contact session, an independent person (no power relation evident) should explain the nature of the research, provide all relevant information necessary and should address any questions so that potential participants (students) are fully informed as explained in Principle 2. Informed consent forms should be signed by both the students and the independent person collecting these forms. When collecting consent forms from student participants in class, the forms should be designed in such a way so that all students sign and hand in the paper form in order to prevent knowledge of who is participating and who is not participating (e.g., explain that everyone signs the consent form, but those who do not want to participate can then draw two lines through their signatures). The signed forms are placed in a box, sealed in front of the last student by the independent person, who will then capture the data. Students who do not give consent immediately, have the opportunity to do so later during the research. Within the online environment, informed consent is obtained using an electronic form where all relevant protocols are followed. This implies that the students are still fully informed and have a choice to freely participate or not. Students are instructed to click on a link that takes them to the informed consent form. If a student then agrees to give consent by clicking "accept", the terms and conditions are explained and the student agrees that they want to participate in the study and that they are fully informed.

The method of recruitment is also essential in ensuring voluntariness. In particular, how, when and where participants are approached and who recruits them are important elements in assuring (or undermining) voluntariness. In considering the voluntariness of consent, RECs and researchers should be cognisant of situations where undue influence, coercion, or the offer of incentives may undermine the voluntariness of a participant's consent to participate in research, as explained under Guiding Principle 1.

Different forms of data collection should be considered for the autonomy principle (i.e., to participate or not). For example, video or audio recordings may include students in one's class who have not provided informed consent to participate in the research. When using video recordings, consenting students should be given options. The first option may be that they give consent if the video recording will only be viewed by the research team; the second option may be that the video recording will be viewed by the research team and will then be shared during dissemination of the research findings. In addition, when conducting surveys, web-based survey tools (e.g., Qualtrics, etc.) that allow for students to participate anonymously should be used. Anonymous online participation eliminates personal identifiers and peer pressure and allows students who are not interested in participating to privately decline. Incentives (if offered) should be kept a minimum to avoid undue influence, and students should be provided with clear timelines during which they may opt in or out of participation in the study.

Guiding Principle 4: Decision to participate (or not)

Principle 4 addresses the decision of the student whether to participate in the research or not. Lecturers have the authority to conduct SoTL research in a specific module they teach. However, they must ensure that students have a choice as to whether to participate in the research. To understand this

principle, it is necessary to distinguish between normal compulsory teaching and learning activities and teaching and learning activities related to SoTL research.

RECs require researchers to clearly explain which activities are research-related and which are curriculum related teaching and learning activities (Bishop-Clark & Dietz-Uhler, 2012). This remains a challenge, as in many cases, there is no distinction between SoTL research activities and normal learning activities. The reason for distinguishing SoTL research activities from normal learning activities is to allow students a choice to participate or not. This implies that normal learning activities are compulsory, but the student has a choice as to whether the lecturer may use the data for SoTL research. Students who do not provide consent to participate in the research cannot be included in the study population. However, it is compulsory that students are still being allowed to participate in the learning activity towards improving their learning (Rowland and Myatt, 2013).

To further protect students as vulnerable participants, RECs suggest that data should not be collected during class time, as valuable teaching and learning time is lost if data collection is conducted during class time. The challenge remains that student participation significantly drops when data is gathered in separate organised sessions outside formal teaching time. This resulted in problems with too small sample sizes, or not being able to reach data saturation, impacting on the credibility of the data (Cleary et al. 2014). Cleary et al. (2014) further explained that students do not participate because they do not see the direct benefit of new or improved innovative learning, and this may have resulted in them not realising the importance of the SoTL research.

Guiding Principle 5: Inclusive, fair, and equitable selection of participants

Many human atrocities underlined by scientific experiments such as the Tuskegee syphilis study (Brandt, 1978), medical research in colonial Africa (Tilley, 2016), the Holocaust, and unethical vivisection triggered critical examination of ethical inclusion of humans in research. Just like research, research ethics has evolved over time (Dhai, 2014; Paul & Brookes, 2015), transitioning various industries and institutional boundaries – this includes the use of students and HE institutional information in scientific inquiry (Hassel, 2013). As discussed previously, due to the power relationship between the students and their lecturers, their age, and the assumed need to be successful in their assessment, students are considered a vulnerable group for SoTL research (Sykes & Dullabh, 2012). There must be a concerted effort by researchers and human RECs to ensure inclusive, fair, and equitable selection of such vulnerable groups in SoTL research (Department of Health, 2015).

The following should be considered in the selection of students in SoTL research: setting, risks, and benefits; vulnerability; inclusion and exclusion criteria; and the recruitment and enrolment process.

The setting and population for the SoTL research must be inclusive of those who would benefit most from the intervention during and after the study, and they must be fully aware of the benefits. Beecher (1966) established that many humans across the globe – and most commonly in the developing world (Harkness et al., 2001) – have experienced grave consequences secondary to participating in harmful experiments that they were not fully aware of. The benefits must always outweigh the risk before participants are allowed to participate in a study. Due to the stringent ethical requirements in the developed and industrial world, many scientists tend to use the developing world as a laboratory for experiments that they would not be

allowed to undertake in their home countries. It is essential that HE institutions and their scientific and ethics committees protect their students and groups of potential participants against such exploitations. The burden of the experimentation must be fairly distributed to the populations that would benefit from the study, and no experiment should be allowed for the development of products for another setting.

SoTL research may overburden students who already have full academic loads. Also, students are easily susceptible to pressure, especially when their lecturers are the researchers. The researcher must scientifically justify why such vulnerable groups are included in the study and must provide strategies to protect them from coercion. However, while protecting the vulnerable population, the researcher must also be careful not to overprotect (Sykes & Dullabh, 2012).

Researchers must evaluate their inclusion criteria to ensure that students are not excluded for non-scientific reasons such as funding, available time, and convenience. Researchers should vividly describe what participants are susceptible to potential risks of the study and the exclusion process (Sykes & Dullabh, 2012). The recruitment and enrolment process demands that the researcher applies the inclusion and exclusion criteria carefully, knowing well that biases may arise during the selection process which might make fair selection criteria inequitable. Furthermore, the timing of any remuneration should be carefully examined to ensure it does not introduce coercion of students.

In *Scholarship Reconsidered*, Boyer (1990) sought to create the culture of rethinking the classroom space as the laboratory for inquiry (Hassel, 2013). Participating in SoTL research is beneficial to the students, academics, and the institutions involved and must be encouraged by all stakeholders.

Guiding Principle 6: Benefits and risks of participating

Principle 6 explores the ethical principles surrounding the risks and benefits associated with participating in SoTL research. Non-maleficence underpins SoTL research and refers to an obligation not to inflict harm on others (Linder et al., 2014). Cleary et al., (2014) argue that any research with humans may hold risks and there may be the possibility of harm. Cleary et al., (2014) refers to "Risk" as the probability of harm when participating in research, and "harm" relates to anything that harms a participant's welfare (Cleary et al., 2014).

Risk–benefit ratio analysis should precede any research with humans. Greeff (2016:1) explains that the purpose of the risk–benefit ratio is to "evaluate whether there is an ethically justifiable balance between the anticipated research results and any harm or inconvenience" that the research can cause any participant. Researchers should assess the probability, magnitude, and seriousness of harm. The risks involved in participating in the research will determine the risk category and levels (e.g., low, minimal, medium, and high risk) (Greeff, 2016). The researcher should identify any harm, whether physical, psychological, social, legal, economic, dignitary, or communal (Greeff, 2016). Ethics applications and supporting documents should contain the expected, potential and anticipated risks and harm categories, level of risk in every stage of the research, and the reason for risk should be justified (Feroduk, 2017). Researchers should further indicate how they plan to minimise the risk of harm and include mitigation strategies (Greeff, 2016; Linder et al., 2014). Before obtaining informed consent, participants should be fully informed about the expected, potential/anticipated risks (Cleary et al., 2014). The benefits of participating should outweigh the potential risk of harm and the risk-benefit ratio should be a favourable ratio (Pool & Reitsma, 2017).

Cleary et.al., (2014) emphasise the value of SoTL research for current students as participants, for future students, the lecturer, the lecturer-researcher, the institution, the broader community, and SoTL funders. Benefits can be direct or indirect. Direct benefits positively affect the interest or welfare of the participant, while indirect benefits are benefits to the researcher, scientific field of knowledge, or the community (Linder et al., 2014). The researcher should disclose all direct and indirect benefits upfront in the ethics application and supporting documentation (MacLean & Poole, 2010).

Another essential element in SoTL research is the equitable distribution of research benefits. Researchers should avoid circumstances where one group of individuals are significantly advantaged or disadvantaged by participating in the study (MacLean & Poole, 2010). Pool and Reitsma (2017) highlight contesting arguments in literature regarding the award of incentives for participating in SoTL research. These authors emphasise that incentives should be appropriate for the time and effort spent participating, and advocate the use of a lucky draw voucher(s) as a token of appreciation.

Guiding Principle 7: Disseminating the results
Principle 7 outlines the dissemination of the research results. As discussed in literature (Fanghanel et al., 2016), there is a distinct difference between adopting a scholarly approach to teaching and learning and participating in SoTL. A scholarly approach (being a scholar) entails only being a consumer of other scholars' knowledge, whereas SoTL is evident of dissemination of research outputs (i.e., being a producer of knowledge). These research outputs take on a variety of forms inclusive of formal and informal outputs. Formal outputs may include peer-reviewed articles, book chapters, and/or conference proceedings and presentations. More informal research outputs

involve intra-institutional presentations, faculty seminars, subject group meetings, and workshops.

As an SoTL researcher, one has an ethical responsibility to inform participants of the relevant dissemination of the results. During the process of informed consent, students should be made aware that the results will be disseminated. In addition, when disseminating the results, careful consideration of the anonymity of participants and institutions is important. The manner in which the findings are presented (e.g., direct quotations of a small group of participants) might reveal the identity of participants. Another important aspect to consider is the format in which the particular results are shared – a journal publication will not necessarily be suitable for a student audience but rather in a visually attractive presentation or report. Principle 7 is an important ethical consideration, and guidelines as outlined above should always be clearly stipulated in the ethics application form.

Guiding Principle 8: Protecting participants' information and the integrity of the research project

Students and their guardians trust HE institutions to protect students' information and dignity. The protection of participant information and integrity is so essential to students, institutions, the Department of Higher Education, and the South African government in general, that many policies and Acts have been promulgated to ensure its implementation.

Major policies and Acts – such as the Post-School Education and Training Information Policy (DHET, 2019); the Human Research Ethics Committee (2021) Principles and Procedures; the Department of Health (2015) policy on Ethics in Health Research: Principles, Processes and Structures; and the Protection of Personal Information Act (POPIA) (Republic of South Africa, 2013) – prescribe the protection of personal information and dignity, simultaneously permitting the use of anonymised data for scientific, quality

improvement and policy purposes in South Africa. Researchers must be aware of all the principles and ethical codes of conduct enshrined in these policies and Acts to ensure the integrity of their scientific inquiry ("ignorantia juris non excusat") (Rudy-Hiller, 2018).

Volitionists believe that a researcher, even if ignorant of the requirements, is liable to the negative outcomes (Rudy-Hiller, 2018). The NWU Human Research Ethics Committee and other credible committees require that researchers state clearly the procedures and strategies they will employ to protect participant information before, during, and after their studies (Department of Health, 2015; Human Research Ethics Committee, 2021). The Committee ensures that all participants in a study complete a confidentiality agreement, which makes researchers aware of their responsibility to protect students and other participants in SoTL research (Human Research Ethics Committee, 2021).

First, as SoTL researchers, we need to ensure strict adherence to all the information we provide to our participating students, especially the content of consent forms which makes us liable for breaches in participant information protection and management (Department of Health, 2015; Republic of South Africa, 2013; Staunton et al., 2021). Being mindful of data protection and confidentiality requirements of the REC provided to the participants through the information document is essential in ensuring the integrity of the research project and safeguarding the research data.

Second, researchers should state their strategies in meeting confidentiality requirements and explain if there are any foreseeable data disclosure engagements in the REC's application documents and during the consent process with prospective participants.

Third, all the research team members should discuss practical confidentiality implications of the study and sign the appropriate confidentiality agreement. Personal identifiers collected during the research should be kept within the knowledge of only the research team. If data will be shared with any government agency, community or funders, participants should be made aware of it before signing the consent form.

Fourth, if breach of confidentiality occurs during the study, the researcher must inform the participants and explain the strategies put in place to remediate the situation. Breaches in confidentiality should also be reported to the ethics committee.

Globally, the integrity of many highly respected people, institutions, and nations has been ruined by poor information management. Therefore, it is necessary that researchers take the protection of personal information and data management processes seriously in their inquiry.

Guiding Principle 9: Safeguard and security measures to protect participant information and data

Data – primary or secondary, containing either personal or institutional information – need to be stored and protected for reference and research-integrity purposes. All ethics committees and research institutions have legal frameworks or policies on how data should be stored and protected and for how long researchers could store data. Data storage is an essential part of research integrity and ethical research in that a breach of protection has the tendency of breaching all other ethical principles – confidentiality, respect, anonymity, and dignity.

Many journals, funding organisations, and governments increasingly demand research data to be archived and shared with researchers across the globe (Bangani & Moyo, 2019) – for example, the National Research Foundation

(2015) Statement on Open Access to Research Publications from the National Research Foundation (NRF)-Funded Research. These requests demand countries to develop Acts and policies to safeguard research participants and their data. Different countries have different data protection laws – it is said that developed countries have stricter participant data protection laws compared to developing countries (Bezuidenhout & Chakauya, 2018). Understanding data protection laws in the research setting and the countries that the data will be shared with is necessary in planning and protecting participants' data (Adams et al., 2021; Department of Health, 2015). In South Africa, POPIA (4 of 2013) and the Department of Health (2015) policy *Ethics in Health Research: Principles, Processes and Structures* underline participant data protection in health research.

For effective data management, researchers need to ask themselves whether the data to be processed are necessary and proportionate as regards what, why, how, and for how long. Key principles on data storage and protection are presented below.

First, the researcher should provide their proposed strategies to safeguard participant information during and after the study to the REC's and the research participants. Second, soft copy data should be protected using encryption software and limiting access to data through the use of passwords protected computers and files. Third, all hard copies containing participant information, including signed consent forms, should be stored in a locked cabinet and the key should be protected. Researchers must also keep a log of research team members who have access to the data- all team members should sign a confidentiality agreement (Human Research Ethics Committee, 2021). Fourth, apart from student grades, examination scripts and teaching materials that need to be retained for academic purposes, all research data

containing participant information should be destroyed after the research in accordance with the REC policies and procedures.

Whether intended or not, it is criminal to allow participant (students) data to be leaked. Sensitive data (pollical, religious, genetic, medical, etc.) could lead to lifelong damage such as stigmatisation. Researchers, therefore, need to take actions to safeguard participants' data.

Guiding Principle 10: Approval for the use of secondary data

Data collected without a primary research intent or for the purpose of research but not covered by the original consent of the participants are regarded as secondary data (Department of Health, 2015; Tripathy, 2013). In many instances, such data form part of routine institutional processes such as teaching, learning, and assessment towards the fulfilment of the requirements for an academic degree or certificate. Other major secondary data sources include census, health records, and routine national surveys (Tripathy, 2013). Such data are held in trust by universities and other institutions, such as the Department of Higher Education.

The *Post-School Education and Training Information Policy* (DHET, 2019) is clear on the importance of secondary data in research quality improvement. The Department of Health (2015) was more specific on the processes and principles required for ethical use of secondary data, stating that "[r]esearch that relies exclusively on secondary use of anonymous information or anonymous human biological materials usually need not undergo formal ethics review, provided that no identifiable information is generated" (Department of Health, 2015, p. 43). It was also explicit that HRECs should expedite the review of proposals for secondary data use and explore the previous consent obtained, if any, for the possibility of covering the new use of the data or requesting new consent (Tripathy, 2013). In cases where the data are anonymous and the outcomes of the research would not expose the

institution or the participants to any potential risks, the committee can approve the study without requesting new consent.

Also, if the data contain participant information but can be anonymised, independent of the researchers, then there is no need for consent from participants. It will then be required that the data gatekeeper sign a clear agreement not to provide data with participant identifiers to the researchers. The ethics committee then serves as a proxy to the participants in granting consent in this case (Tripathy, 2013). Ethics committees, including the NWU Human Research Ethics Committee, require an approval from gatekeepers (the Research Data Gatekeeper Committee, in the case of the NWU) (Research Data Gatekeeper Committee, 2019) for full ethical approval of studies using secondary data.

First, the researcher should give clear reasons why they would need to use the secondary data and who owns the intellectual property rights to the outcomes of the study to be conducted. Second, applications for the approval of prospective studies should be done in such a way that data will be available for secondary analysis. Third, the researcher should state clearly the benefits the institution that hosts the data will gain from the study. Lastly, the researcher must be certain about the conditions of the secondary data being sought. For example, data may be collected over years, especially if one is investigating student outcomes over a period of time; extraneous variables such as change of lecturers may blur the results.

Finally, secondary data provide opportunities for researchers to conduct trend analyses and other studies that could prove vital for improvement in their teaching and learning methods and institutional policy. Such data are quick to use, less time consuming and cost-effective; however, secondary data may be less accurate and outdated compared to primary data.

Conclusion

This chapter affirmed the potential of SoTL research for transformative pedagogies in HE. The Framework for Academics as University Teachers (DHET, 2018) clearly stipulates that academics as university teachers should engage in pedagogical innovation regarding teaching and assessment strategies in their classrooms. This chapter highlighted that SoTL research could enable this pedagogical innovation. The chapter set out to develop an understanding of the misconceptions and confusion related to ethics in SoTL research. Furthermore, the scientific gap identified in the literature implies the provision of more guidance on ethical issues to enhance SoTL research and ethical mindedness. Practical principles and guidelines relevant to ethics in SoTL were provided in an attempt to close this gap. Guidelines included aspects such as how to address the power relation in SoTL research, important aspects of informed consent and the process, autonomy to choose freely to participate or not, selection of participants, benefits and risk ratio, protecting participants and the integrity of the research as well as safeguarding data.

A limitation of the study might be that design thinking as the main research methodology might not provide sufficient insight into the phenomena of ethics in SoTL research. A suggestion for future research ethical mindedness in SoTL could include individual or focus group interviews towards a more in-depth inquiry.

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