

The Power of Circle Use: Learners' Perspectives on Benefits, Challenges, and Suggestions in Personal, Social and Career Development

Janette Scicluna

Ministry for Education, Sport, Youth, Research and Innovation

<https://orcid.org/0009-0000-7251-7373>

Amanda Bezzina

Institute for Education

<https://orcid.org/0000-0002-7323-6546>

Abstract

Circle use is a method of organising and facilitating activities in Personal, Social, and Career Development (PSCD) lessons. PSCD, a compulsory subject in Maltese primary and secondary education, focuses on building emotional literacy, empathy, and social skills. This study adopted an interpretivist perspective and a qualitative methodology to explore learners' subjective experiences, feelings, and perceptions of circle use in PSCD lessons. Data was collected through four focus groups with semi-structured questions, allowing for rich, context-specific insights about benefits, challenges, and suggestions for circle use in PSCD. Participants, aged 11-16, were selected through purposive sampling. Findings highlight several advantages of circle use, including enhanced communication, better focus, increased participation, and improved relationships. Participants reported that circle use fosters a relaxed, inclusive, and comfortable environment conducive to open communication, reflection, and social-emotional development. Challenges were also identified, including behavioural issues, discomfort for shy learners, vulnerability during sharing, and the absence of desks, which hindered writing activities. Notably, circle use was linked to heightened student wellbeing, empathy development, and empowerment through a safe, non-judgmental atmosphere, supported by educators skilled in managing group dynamics. Suggestions for improvement included incorporating cushioned chairs with retractable tables and creating PSCD groups from existing home classes to ensure familiarity and trust among participants. The study is an inspiration for policy makers in education as it emphasises the need for educator training to address challenges effectively and safeguard the positive aspects of circle use.

Keywords

Circle use, person-centred, empowerment, learner wellbeing

Contact: Janette Scicluna, janette.scicluna@ilearn.edu.mt

This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial reuse, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way.

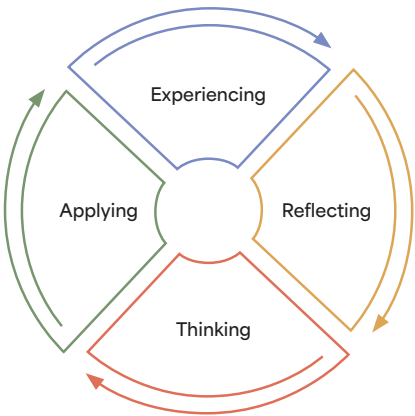
Introduction

Circle use is a way of organising and facilitating Personal, Social, Career Development (PSCD) lessons in a circle configuration through a set of experiential activities which are processed in depth (Camilleri & Bezzina, 2021; 2022). PSCD is a compulsory subject in primary and secondary education in Malta that focuses on the development of emotional literacy and empathy together with the acquisition and refinement of social skills (Bezzina et al., 2015; Camilleri & Bezzina, 2022; Falzon et al., 2019). Circle use enables increased communication and learner participation (Jankowska & Atlay, 2008; Lown, 2002; Sawers et al., 2016; Tews et al., 2015), holds notions of impartiality and inclusivity (Mullet, 2014; Pranis, 2015; Stutzman Amstutz & Tew, 1998; Winters, 2014), strengthens beneficial interactions (Camilleri & Bezzina, 2021), fosters respect (Roffey & McCarthy, 2013) and encourages the development of social and emotional skills (Bezzina & Camilleri, 2020).

Circle Use

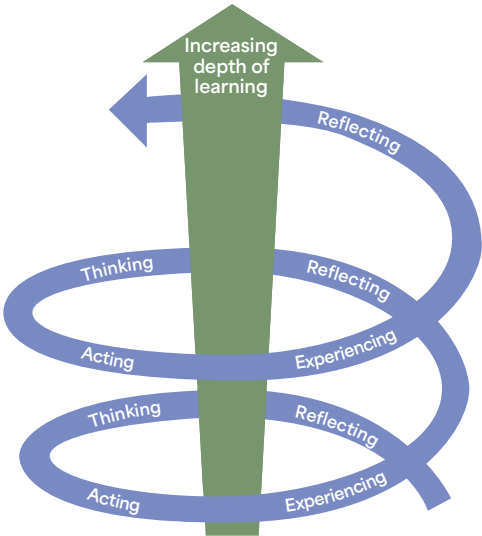
In Malta, PSCD lessons are statutory and offered to all learners in primary and secondary schools. PSCD lessons are based on a learning approach that involves learners interacting with each other besides the educator. Circle use in PSCD encourages such interactions due to its layout since during circle use the learners are seated facing one another (Camilleri & Bezzina, 2021; Wannarka & Ruhl, 2008). Circle use also promotes increased participation through its seating formation and enhances learning (Jankowska & Atlay, 2008; Lown, 2002; Sawers et al., 2016; Tews et al., 2015; Zainuddin & Idrus, 2018). Augmented interactions and participation are essential for experiential learning and processing to take place; two foundations that make up the core of PSCD sessions. PSCD utilises Kolb's (1984) Experiential Learning Cycle which entails presenting an experience to the learners and then processing it (Bezzina et al., 2015; Camilleri & Bezzina, 2021, 2022; Camilleri et al., 2012; Falzon et al., 2019; Muscat, 2006). During the PSCD session, such an experience is provided in the form of a role play, group work, a game or other activities which are connected to the planned learning theme. Through such an active learning approach, learning is memorable, transferable to real-life situations and increasingly authentic (Akpan & Beard, 2016; Kong, 2021) and entails the learners being wholly engaged (Heron, 1999). Figure 1 illustrates the Experiential Learning Cycle and its four stages.

Figure 1
Kolb's Experiential Learning Cycle (Kolb, 1984)



Note. Adapted from Kolb A., & Kolb D. (2018). Eight important things to know about the Experiential Learning Cycle. Australian Educational Leader, 40(3), 8-14.

Figure 2
The Experiential Learning Spiral (Kolb & Kolb, 2018)



Note. Adapted from Kolb A., & Kolb D. (2018). Eight important things to know about the Experiential Learning Cycle. Australian Educational Leader, 40(3), 8-14.

A central process during circle use is that of processing. This is when learners reflect on the outcomes of the activity and link them to their real-life experience. This phase is essential for the learning process (Bezzina et al., 2015), as there would not be any learning if the experience is not analysed and reflected upon (Falzon & Muscat, 2009; Muscat, 2006). Gradually, the Experiential Learning Cycle (Kolb, 1984) develops into a spiral through connecting earlier learning points to new learning derived from processing new experiences (Kolb & Kolb, 2018; Figure 2).

Benefits of Circle Use

Circle use is perceived as welcoming and extending warmth because of its casual setting that creates serenity and pleasantness (Baldwin & Linnea, 2010; Camilleri & Bezzina, 2021; Douglas & Gifford, 2010). In addition, literature shows that circle use creates a placid surrounding that projects equality and promotes dialogue (Pease & Pease, 2004), while the absence of desks enhances comfort and a relaxed atmosphere (Knapp et al., 2013). Further, in a study conducted by Camilleri and Bezzina (2021), a participant educator said that learners consider circle use enjoyable. These characteristics contribute to the creation of an environment that encourages increased participation.

Due to its round shape, circle use includes everyone in the front row, thus offering everyone a clear view of all learners. It also allows physical proximity leading to enhanced engagement, participation and learning opportunities (Benedict & Hoag, 2004; Marx et al., 1999). Its barrier-free setting together with the proximity supports the learners in being more receptive of others' opinions and promotes peer-to-peer learning (Falout, 2014). Sharing experiences in such closeness fosters the development of positive relationships, good will and altruism (Baumeister & Finkel, 2010; Falout, 2014), creating the ideal setting for acquiring and practising empathy (Bezzina, 2022; Camilleri & Bezzina, 2021; Evanovich et al., 2020) while also boosting learners' abilities and autonomy (Camilleri & Bezzina, 2022).

A study carried out by Camilleri and Bezzina (2022) showed that circle use promotes belonging. Feeling accepted and forming part of a group contributes to happiness (Baumeister & Finkel, 2010) and these factors brought about by circle use promote wellbeing (Falout, 2014). Circle use supports learners in getting used to talk about their feelings on a regular basis, and this tends to facilitate the process for learners to seek help in view of difficulties they might encounter (Ecclestone & Hayes, 2009). This also emerged in a study carried out by Falzon et al. (2019), whereby participants perceived processing during circle use as empowering them to seek counselling. Processing in circle use and counselling are two separate methods, but they share similarities (Falzon & Muscat, 2009; Falzon et al., 2019).

Challenges of Circle Use

Literature shows that although mostly beneficial, the influence that learners have over each other during circle use could also have a detrimental impact in certain situations such as when dealing with negative feelings (Camilleri & Bezzina, 2021; 2022). This also applies to undesirable behaviour which is more easily copied during circle use. Moreover, any issues that arise during circle use can easily intensify and be more challenging to settle due to the learners being seated facing each other (Camilleri & Bezzina, 2022). Research shows that in such situations where behavioural issues are present, it would be a better fit if the desks are arranged in rows in the traditional manner (Wannarka & Ruhl, 2008). This also applies to situations where learners are disruptive or overly talkative, as this presents the educator with an added challenge to manage time and behaviour effectively (Camilleri & Bezzina, 2021).

Research on circle use reveals that its open layout and absence of desks can pose additional challenges for shy or introverted learners. A study by Camilleri and Bezzina (2021) found that these learners often feel exposed and hesitant to participate. The research also highlighted that some learners withhold their true opinions due to fear of disagreement, while others respond to conform to the group. This is a process that Janis (1972) termed “groupthink”, where individuals suppress dissenting views to avoid social exclusion.

These challenges emphasise the need for the educator to receive proper training in facilitating circle use. Such need emerged in two studies carried out by Camilleri and Bezzina (2021; 2022), where it was also highlighted that such training needs to be regular.

Theoretical Framework

Circle use is rooted in a theoretical framework which consists of philosophical, psychological and sociological approaches (Bezzina et al., 2015; Camilleri & Bezzina, 2022; Falzon et al., 2019; Muscat, 2006). These approaches promote holistic development and include humanistic, constructivist, contextual, progressive, positive, critical and developmental perspectives (Camilleri & Bezzina, 2021; 2022). Through these theoretical approaches, the wellbeing of learners is prioritised and the focus is on equipping learners with competences required for leading healthy, productive lives in society (positive theoretical framework). The learners are also kept at a central position and given opportunities to share and to critically reflect on their experience, knowledge and thoughts (humanistic, constructivist, critical and progressive theoretical frameworks). The PSCD teacher keeps in mind the developmental stage and the context of the learners (developmental and contextual theoretical frameworks). A crucial component for circle use is the element of safety so that learners can feel safe to participate through sharing their views in a non-judgmental environment (Bezzina, 2018; Camilleri & Bezzina, 2021; Falzon et al., 2019; Muscat, 2006; Tulasi & Rao, 2021).

Aim of Study

Previous research on circle use in educational settings has mainly focused on the perspectives of professionals, such as teachers, while largely neglecting the voices of learners themselves (Camilleri & Bezzina, 2021; 2022). This gap in the literature highlights a critical oversight, as learners are the primary participants and beneficiaries of circle use, particularly within the context of Personal, Social, and Career Development (PSCD) sessions. To address this research gap, the present study was specifically designed to explore and document the learners' direct experiences, thoughts, and emotions associated with circle use. By focusing on their lived experiences, this study aims to provide a more holistic understanding of the practice, shedding light on how learners perceive and engage with circle use as a tool for learning, emotional expression, and social interaction. Recognising learners as active agents within the circle process is essential, as emphasised by Camilleri and Bezzina (2021; 2022), who focus on the central role of learners in shaping the effectiveness and outcomes of circle activities. This research study sought to answer the following research questions:

1. What are the learners' experiences, thoughts and feelings about circle use during PSCD lessons?
2. Which are the benefits and the challenges that students encounter during circle use?

Methodology

An interpretivist perspective was chosen for this study as it allows for an exploration of learners' experiences that are rooted in a subjective reality (Pervin & Mokhtar, 2022; Rahman, 2016). Criticisms to this research paradigm are that it is susceptible to bias since it is subjective, it is not generalisable since it is context-specific, and it does not aim to bring change but merely to seek an understanding (Pham, 2018). Despite such criticism, this perspective was used as it permitted the researchers to discover the experience of learners about circle use, the feelings experienced during circle use, and their various perceptions.

This study was conducted using a qualitative methodology and through an inductive approach, which implies that themes are not previously set and are determined by the data that emerge (Creswell, 2014). Such methodology enabled the researchers to delve into the participants' personal feelings, thoughts and perceptions which shape their world (Ahmad et al., 2019; Bleiker et al., 2019) and obtain an understanding of what meaning is formed out of a contextual event (Ary et al., 2019). Critiques of such a methodology are that results are personal opinions susceptible to bias (Noble & Smith, 2015), results are not generalisable due to the small number of participants, data analysis is a lengthy process (Rahman, 2016), and words are not accurate like numbers (Aspers & Corte, 2019). In response to such critiques, Thomson (2011) debated that a numerical value fails to provide the necessary information on subjective matters such as perceptions, thoughts and feelings and that in certain situations such as a rating scale, a numeric digit could signify different values to different individuals.

Four focus groups with semi-structured questions were held to gather data for this study. When compared to other tools, focus groups are less time-consuming as they enable the researcher to gather a considerable amount of rich information concurrently from a number of participants (Busetto et al., 2020; Cohen et al., 2018; Nyumba et al., 2018). Focus groups also make it easier for shy participants to contribute since they would be sharing the spotlight with the other group participants. Adversely this could have also been a hindrance due to groupthink (Janis, 1972), where participants might have held back from stating their real opinion if it did not match that of the rest.

The focus groups consisted of ten participants each, to a total of forty participants. The participants for this study were selected through purposive sampling from state middle and secondary schools from two different colleges in the north and south clusters of Malta, with ages ranging between 11–13 years for middle schools and 13–16 years for secondary schools. Selected participants needed to have experienced circle use during PSCD and were required to be skilled at expressing themselves well verbally.

Research Ethics

In carrying out this research, ethical clearance was sought from the Institute for Education (IfE) and the Ministry for Education, Research, Youth and Innovation (MEYR). Permissions were then obtained from the Heads of College and subsequently from the Heads of School. The purpose and process of the research was explained to participants and their parents/guardians and it was made clear that participation is voluntary and anonymous and that participants could stop at any time. Participants were requested to have a minor assent form and consent form signed by parents/guardians.

To address trustworthiness, the same focus group questions were repeated four times in different schools and similar findings were obtained. A thorough review of each research step was done. Throughout the process, the researchers ensured confidentiality so that participants were comfortable to speak freely. Generalisability was not possible to be attained in this type of study but meaningful insights were generated. Trustworthiness was also enhanced through the use of a reflective journal that helped the researchers to scrutinise thoughts and feelings so as to control bias (Enworo, 2023; Lincoln & Guba, 1985; Rettke et al., 2018).

Data Analysis

The data was analysed using thematic analysis, following Braun and Clarke's (2006) six-step framework. A semantic (explicit, surface-level) approach was adopted, with codes manually assigned to ensure a systematic and thorough examination of the dataset. All collected data was carefully transcribed and reviewed to identify recurring patterns and significant insights. Through an inductive process, initial codes were derived directly from the raw data, which were then refined and organised into broader themes and subthemes. These emerging themes

were continually reassessed for coherence and relevance to the research objectives, ensuring they accurately represented participants' perspectives.

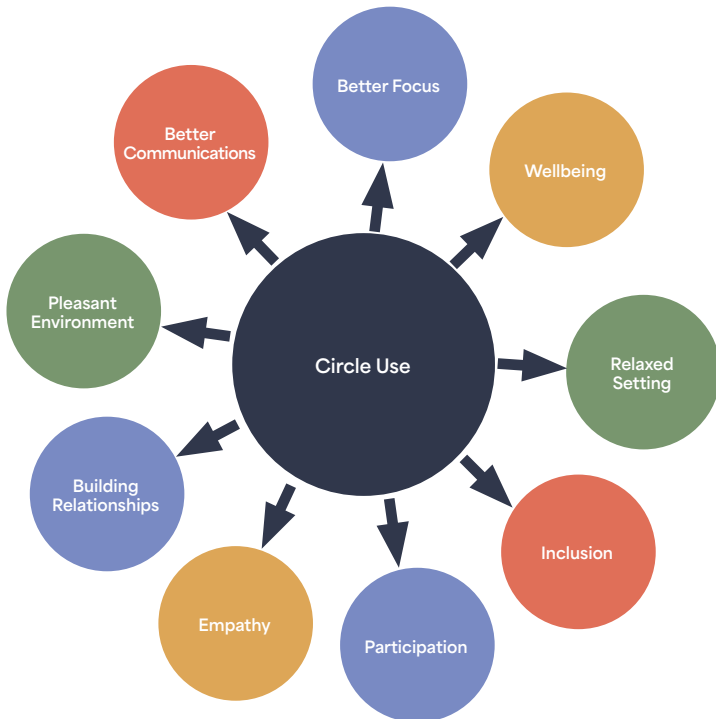
Three primary themes were identified: (1) Benefits, (2) Challenges, and (3) Suggestions. These themes not only structured the analysis but also directly addressed the study's research questions, providing a comprehensive understanding of the investigated phenomena. To uphold ethical standards and ensure confidentiality, all participant names referenced in the focus group transcripts were replaced with pseudonyms. This measure protected participants' identities while allowing their contributions to be accurately represented in the findings.

Theme 1: Benefits of Circle Use

The theme named "Benefits" includes nine subthemes which are presented in the subsequent sections, summarised in Figure 3.

Figure 3

Benefits of Circle Use



Better Communication. Participants stated that it is easier for them to communicate during circle use than when they are seated behind each other in a traditional classroom setting and the fact that they are facing each other encourages them to communicate more:

We can communicate better in a circle because let me say, for example, Jenny is over there and Len is over there (points to locations behind) we can't really communicate as much as we can communicate here. (Lucy, Year 7)

Kate also noted that circle use is more suitable when participation in activities is desired:

You can see everyone, so if someone is talking, you're not giving [them] your back sort of ... and even if we do an activity, since we are in a circle, it would be more comfortable ... the situation. (Kate, Year 10)

Participating in activities during PSCD is essential for learning to occur (Bezzina et al., 2015; Camilleri et al., 2012; Falzon et al., 2019; Muscat, 2006), social and emotional skills are enriched through constructive social interactions (Bezzina & Camilleri, 2020) and circle use reinforces such beneficial interactions (Camilleri & Bezzina, 2021).

Results from the study have also shown that circle use offers better visuals and enhanced audibility. Participants said that during circle use they get direct visual access to resources used such as the interactive board and the educator, besides being able to see each other.

When we are watching a video, for example, in the normal classroom I am seated at the side so I need to watch like this (sits in a twisted position). (Kate, Year 10)

I have bad hearing so maybe if someone is across the room, I cannot hear the person really. So this is even more practical for sound to arrive. (Ambrose, Year 8)

These statements are in line with literature suggesting that a person's experience is affected by the layout of a place (Amedeo et al., 2009; Rivero, 2013) as well as their level of participation (Byers et al., 2018; Knapp et al., 2013).

Participants also valued the fact that circle use offers better visuals and enables them to include body language in their interactions, making them more meaningful:

When you are without a desk and the like, you are going to be seeing the whole body. Even from a person's body language you can realise. (Kate, Year 10)

Literature shows that body language has a lot of significance during interactions, and at times it can alter the implication of a statement (Camilleri & Bezzina, 2022; Sharan et al., 2022; Wang et al., 2019).

A Relaxed Setting for Learning and Reflection. The absence of desks during circle use was linked to a relaxed setting that allows barrier-free communication and encourages learners to share.

The fact that perhaps you are seated next to your friends, they are near you and you do not have a desk in front of you it's like you change, you no longer have the attitude of a lesson... it's more something where you can open up. (Eli, Year 11)

These comments are in line with literature that proposes that circle use conveys a pleasant environment (Baldwin & Linnea, 2010; Camilleri & Bezzina, 2021; Douglas & Gifford, 2010), while a setting with desks limits collaboration and can be an obstruction to effective communication (Knapp et al., 2013). Additionally, literature suggests that learning is more meaningful when the learning environment is pleasant (Akpan & Beard, 2016; Zull, 2002; 2011). This is in line with the progressive theoretical approach applied in circle use (Bezzina et al., 2015) which actively involves learners by the creation of surroundings that are appealing (Kohn, 2015).

Better Focus. Participants in this research study revealed that circle use helps them focus more on the lesson than the traditional classroom setting of being seated behind each other. Some explained that having a desk makes it easier to get distracted by fidgeting with stuff such as pens or because the desk itself helps them conceal undesirable behaviour, while others disclosed that being behind someone else distracts them:

I think that usually concentration increases because being like this and the screen is exactly in front of me and there's no one's hair, or someone doing their hair or someone playing with a pen. (Amelia, Year 10)

Other studies have shown that participants are more attentive when they are nearer to the front, with enhanced visual access (Marx et al., 1999; Pease & Pease, 2004).

A Comfortable, Pleasant Environment. The findings of this study highlight the significant impact of classroom environment on the learner's learning experience. Participants consistently emphasised how the PSCD classroom's personalised environment created a more positive atmosphere compared to conventional classrooms. As Amelia (Year 10) noted: "Normal classrooms are all white and basic ... here are many things that we did ourselves ... it's like even the room gives you a positive aspect, not something that brings sadness." This observation aligns with the humanistic and holistic educational frameworks that underpin circle-use pedagogy (Bezzina et al., 2015; Falzon et al., 2019), which prioritise learners' emotional and psychological needs over purely content-driven approaches (Khatib et al., 2013; Treve, 2021).

A key theme emerging from the data was the empowering effect of seeing the

learners' own work displayed in their learning environment. Participants reported that this practice enhanced their sense of self-worth and confidence, directly supporting PSCD's core objective of fostering learner empowerment (Bezzina et al., 2015). Conversely, learners highlighted how physical discomfort could significantly hinder their ability to concentrate, as evidenced by comments such as: "If you're comfortable, you don't think about ... 'oh this chair is so uncomfortable', you think about the lesson" (Faye, Year 8), and "I would change the chairs and make them with cushions ... you do not feel like following what is being said" (Sid, Year 7). These findings strongly validate the humanistic approach's emphasis on creating comfortable learning spaces that address learners' basic physical and emotional needs (Khatib et al., 2013; Tulasi & Rao, 2021). The study confirms that circle-use methodology, rooted in this humanistic tradition effectively creates learning environments that support both academic engagement and personal development by attending to learners' fundamental requirements for comfort, belonging, and self-expression.

Wellbeing of Learners. Another sub-theme that emerged from the research study is that of wellbeing. Results show that circle use during PSCD contributes directly to learners' wellbeing. Participants stated that they enjoy circle use because it differs from other subjects, and it enables them to do activities that they enjoy while also providing them with an opportunity to discuss and share thoughts and feelings. Other participants also mentioned that they feel less stress during circle use in PSCD, since there is no exam and since circle use is based on discussions rather than remembering factual content: "There is no right or wrong answer so you feel more comfortable to express your opinions as well as questions you have" (Dwayne, Year 11).

Participants revealed that the rules in circle use are central to create a safe environment that fosters trust, enhances wellbeing and enables them to participate and share. Rules promote a safe setting and communicate behavioural expectations (Depear, 2021). In addition to the rules, the role of the PSCD teacher also seemed to make a difference during circle use, and seemed to affect the wellbeing of the learners. Participants recounted how their educator reminds them not to share highly personal matters and how the educator implements the rules during circle use:

If we're in a circle and someone is talking to someone else and not paying attention, the teacher will notice and stop them so that they listen to me. (Bron, Year 7)

In line with this, literature highlights the importance of having educators properly trained and skilled at handling undesirable behaviour to protect the positive setting of circle use. It is a necessity for educators to receive appropriate training that permits them to address such situations effectively (Camilleri & Bezzina, 2021; 2022). Being unequipped to respond adequately to such occurrences could jeopardise the safe environment and possibly affect learners adversely (Leach & Lewis, 2012).

Relationship Building. Participants in the study consistently reported that circle-use activities facilitated meaningful social development, including enhanced group cohesion, mutual attentiveness, and interpersonal understanding. As Kate (Year 10) said, “The circle in itself ... it’s something that’s closed ... you feel part of a group”, while Cleo (Year 8) noted, “In a circle ... you get to bond more”. These qualitative findings align with established theoretical frameworks showing that circular seating arrangements promote social bonding and collective identity formation (Baumeister & Finkel, 2010; Falout, 2014). The empirical results corroborate previous research demonstrating the efficacy of circle use in cultivating positive peer relationships and fostering inclusive learning environments (Camilleri & Bezzina, 2022; Cefai et al., 2014). This convergence with existing literature, including Mosley and Niwano’s (2007) work on group dynamics and Tew’s (1998) research on classroom configurations, strengthens the validity of our findings regarding circle use as an effective pedagogical strategy for social-emotional learning.

Inclusion. Another emerging sub-theme was that of inclusion. The study findings showed that participants perceived circle-use arrangements as inherently inclusive, fostering equal participation and visibility among all learners. As Erin (Year 11) noted, “everyone is included due to the circle”, while Kurt (Year 10) emphasised that “everyone is the same”. This structural equality was further linked to feelings of personal significance, with Holly (Year 10) explaining, “You feel unique ... in the sense that you are in front, it’s like you have a certain importance ... you’re not at the back of the class.” These participant accounts align with established literature highlighting circle-based learning as an effective strategy for promoting equity and inclusion in educational settings (Bickmore & Parker, 2014; Lavery, 2016; Parker-Shandal, 2022; Roffey, 2006). The findings suggest that the physical and symbolic nature of the circle eliminates hierarchical seating and ensures equal visibility, whilst reinforcing democratic participation and validates each learner’s presence in the learning environment.

Participation. Participants stated that circle use encourages them to participate more:

I see it as there being more participation in a circle as opposed to when you are in class. When you have rows it’s like you say, you don’t feel like asking. When you are in a circle you see the others asking questions and being listened to, you feel, like, more comfortable to speak and to ask. (Dwayne, Year 11)

In the study, some of the participants linked increased participation to the favourable conditions that circle use brings along. These include safety, confidentiality and the bonding that forms during circle use. One participant expressed that generally they are very reserved, but during circle use they open up:

I see it as an opportunity to speak about what I think because it’s like in other situations I keep things inside me, I don’t talk and in PSCD I have an opinion about something and I speak, I say what I think. (Kurt, Year 10)

Literature shows that increased involvement supports learners in taking an active role in their learning process and leads them to build their own learning, while conjointly empowering themselves along the way (Bada & Olusegun, 2015; Fernando & Marikar, 2017; Golder, 2018; Schunk, 2012). This reflects a constructivist approach, which forms part of the theoretical framework utilised in circle use.

Empathy. Empathy denotes the capability of understanding and feeling what another person is feeling without holding such emotions (Riess, 2017; Rogers, 1961). Results from the research study indicated that circle use during PSCD expands the learners' ability to empathise with one another:

Sometimes even just from the face you can see that they are sad or they don't feel like anything ... I think that when you are in circle time you can see faces and sometimes you can notice just by looking at a face. (Carly, Year 7)

This mirrors literature that shows that circle use supports learners in developing empathy (Bezzina, 2022; Camilleri & Bezzina, 2021, 2022; Evanovich et al., 2020).

Contrastingly, a participant perceived empathy as something that is either present or not and that circle use does not lead to acquiring empathy:

I think that it is not the circle that makes the difference, but rather your character ... if you have a character that for you it is natural that you empathise with others and that perhaps you feel a little bit more, the circle will remain the same thing. If then you have a character that you do not feel much for others, or perhaps you do not have the ability to understand a situation that someone else is going through, the circle is not going to change that fact. (Eleanor, Year 11)

Indeed, this view is also reflected in literature which hints that it is not always possible to develop empathy (Schnitzler & Fuchs, 2023; Schumann et al., 2014; Speyer et al., 2022).

Theme 2: Challenges of Circle Use

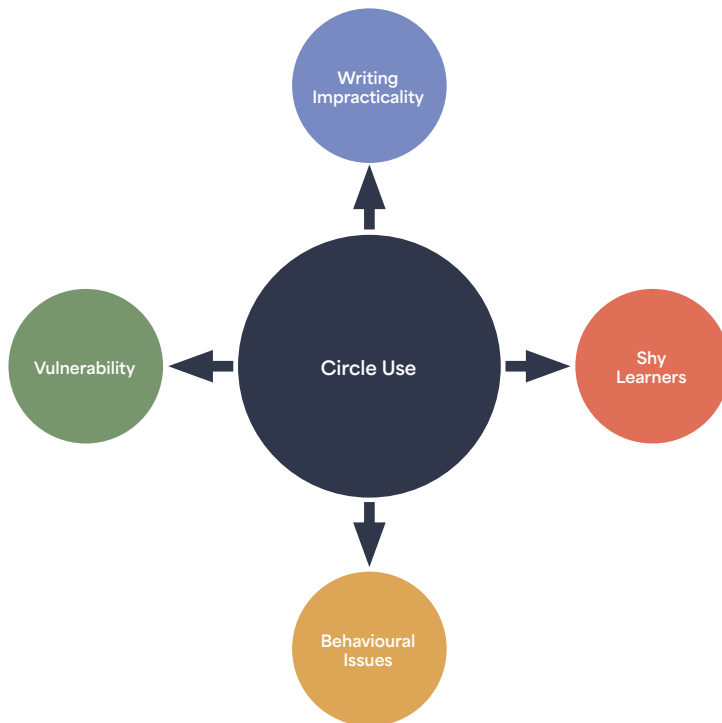
The findings of this research revealed that circle use also presents some challenges: behavioural issues during circle use, shy learners, vulnerability, and the absence of a desk during circle use (Figure 4).

Behavioural Issues. Findings from this research have shown that circle use facilitates undesired communication. Participants stated that circle use makes it easier for them to get involved in conversations that are not related to the ongoing session, and being in the vicinity of friends sometimes tempts them to disengage from the session:

I feel that I do lose a bit of concentration if my friend comes to tell me “listen, I have things to tell you” ... I do feel like instead of listening to the teacher and my peers who would be talking, I would be listening to what my friend is telling me. (Amelia, Year 10)

In line with literature, the circular seating arrangements can encourage disruptive behaviour (Camilleri & Bezzina, 2022), and traditional seating arrangements with rows are viewed as more fitting when there are such behavioural concerns (Wannarka & Ruhl, 2008). This matter highlights again the need for professional training that equips the educator with the required skills to deal with such behaviour effectively so that the positive ambience of circle use is safeguarded (Camilleri & Bezzina, 2021; 2022).

Figure 4
Challenges of Circle Use



Shy Learners. The study also identified a notable challenge regarding shy learners' experiences in circle settings. While the circular format promotes inclusion, it can simultaneously create discomfort for introverted learners by placing them in an unavoidable spotlight during speaking turns. As Kurt (Year 10) explained, "A disadvantage of the circle is that ... when someone talks, everyone looks at them ... it causes some stress, or someone feels uncomfortable." These findings align with Camilleri and Bezzina's (2021) research, which similarly found that shy learners often experience feelings of vulnerability in circle configurations. This phenomenon may also relate to Janis's (1972) concept of groupthink, where learners may suppress authentic opinions to conform to group norms. The results show the critical importance of specialised educator training (Camilleri & Bezzina, 2021; 2022) to develop strategies that support shy learners while maintaining the circle's inclusive benefits. Proper facilitation techniques can help mitigate discomfort while preserving the pedagogical value of collective discussion formats.

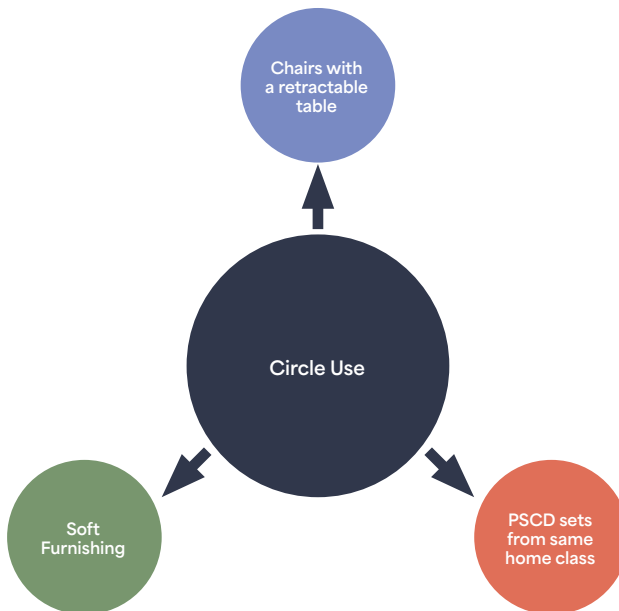
Vulnerability. The research revealed significant psychological barriers experienced by some learners during circle-based activities. Participants described two distinct but interrelated forms of discomfort: (1) anxiety about potential misinterpretation of shared content, and (2) perceived non-verbal judgment from peers. Holly (Year 10) shared the first concern: "If I share something ... there would be someone who interprets it wrongly or gets the wrong impression of me." Amelia (Year 10) expressed the second: "You feel confidential [in confidence] talking ... you can tell what they're saying from their face." These findings substantiate existing pedagogical literature that emphasises three critical requirements for effective circle implementation: trained facilitation (Camilleri & Bezzina, 2021; 2022), structured protocols (Camilleri et al., 2012; High, 2017), and cultivated psychological safety (Depeare, 2021; Erwin, 2004). The data particularly supports Camilleri and Bezzina's (2022) argument that circle effectiveness depends on educators' ability to mitigate anxiety and discomfort.

Absence of Desks. The study revealed significant physical and socio-emotional challenges when learners engage in writing tasks during circle-based learning. Several participants reported both discomfort and psychological disconnection when forced to move away from the circular formation. As Eli (Year 11) said: "When we refer to the [workbook], we need to turn round towards the desks ... it becomes a normal class again, actually worse because you look at the wall and become excluded from everybody else." This participant insight reveals three issues: (1) the physical awkwardness of writing without proper surfaces, (2) the cognitive disruption of switching between collaborative and solitary tasks, and (3) the symbolic exclusion from the circle's communal space. These findings carry important implications for circle pedagogy, suggesting that the format's benefits (enhanced engagement, equal participation, and group cohesion) can be compromised when activities requiring individual focus are introduced without structural adaptation.

Theme 3: Suggestions for Circle Use

The final theme emerging from the data is about suggestions for circle use (Figure 5).

Figure 5
Suggestions for Circle Use



Participants proposed three key improvements. The first one was that of having chairs with retractable tables to address the writing challenge, thus providing necessary desk support during writing tasks while maintaining the circle's flexibility when not needed. The second one was that of having cushioned chairs and soft furnishings to alleviate physical discomfort (specifically back pain) and cultivate a welcoming atmosphere conducive to open participation. The third one was that of restructuring PSCD groups to have learners from the same home class rather than mixed classes. This last recommendation stemmed from observed social dynamics, where mixed-class groupings fostered disruptive subgroup formations that limited trust-building and empathy development. Participants noted that existing mixed-class arrangements created artificial divisions, whereas natural home-class groupings would enhance pre-existing relationships thus strengthening group cohesion and psychological safety. The data suggests that implementing these learner-informed modifications could enhance the social-emotional efficacy of circle-use pedagogy while addressing previously identified challenges related to writing and shy learners' participation barriers.

Recommendations

Recommendations for Policy Makers and Educators

This study highlights the critical need for specialised educator training and optimised learning environments to maximise the benefits of circle-use pedagogy, with three key recommendations emerging. The first one is professional development emphasising facilitation skills for creating psychologically safe spaces, managing power dynamics, and supporting shy learners (Camilleri & Bezzina, 2021; Depear, 2021). The second one is that of investing in environmental modifications including furniture (cushioned chairs with retractable desks) and dedicated PSCD rooms to address physical discomfort and writing challenges while fostering engagement. The third one is that of having structural adjustments like smaller, consistent home-class groups (12–15 learners) to build trust and ensure equitable participation. These evidence-based improvements would help to address the identified challenges while aligning with the tripartite framework for successful circle implementation: physical comfort, social-emotional safety, and skilled facilitation (Erwin, 2004; High, 2017). The findings emphasised that design in both human and physical dimensions would transform circle-use from a simple seating arrangement to a powerful pedagogical tool for belonging and dialogue.

Recommendations for Future Research

A similar study could be carried out with learners in primary schools since this research focused on middle and secondary years. This research could be replicated so that findings can be compared, while a quantitative version could also be carried out for a more generic but widespread view. Additionally, one can delve into the learners' opinion on the formation of PSCD sets and the impact on learning. Another possible study could be the comparison of schools with rooms dedicated to PSCD and others with no such rooms and the effect this has on learners and the learning process.

Limitations of the Research

This study does not provide generalisable findings, as the number of participants was limited and the study was not held with a large number of learners. The research prioritised a rich, detailed understanding of the learners' experiences with circle time in PSCD lessons rather than statistical representation. Another limitation is potential insider research bias, given the researcher's familiarity with the PSCD educational context. To address this, measures such as maintaining a reflective journal and engaging in peer discussions were implemented to critically evaluate and minimise subjective influence.

Additionally, the focus groups were bound by time constraints, which occasionally hindered deeper exploration of emerging themes. As a result, some valuable insights may

have been overlooked due to the inability to probe certain responses more thoroughly. The structured nature of school schedules also limited session durations, requiring careful prioritisation of discussion topics. Despite these challenges, the data collected offers meaningful perspectives on students' lived experiences within the study's specific context.

Conclusion

This study makes an important contribution to the literature by providing first-hand insights into Maltese learners' experiences with circle-use pedagogy in PSCD lessons. Through qualitative analysis, the research revealed both the significant benefits of circle use – including enhanced belonging, participation and self-expression – as well as notable challenges such as discomfort for shy learners and physical issues. The findings identified key environmental, social and pedagogical factors that influence learning effectiveness during circle activities, while proposing concrete, learner-informed recommendations for improvement. By bridging theory with practical classroom applications, this study offers valuable evidence-based guidance for educators seeking to improve circle use and contributes to more inclusive and effective PSCD practice that meets the learners' developmental needs. The research highlights the importance of considering learner perspectives when evaluating and refining educational methodologies.

Notes on Contributors

Janette Scicluna holds a Master of Education in PSCD from the Institute for Education, Malta, and a B.A. (Hons) degree in Social Work from the University of Malta. She has been working as a PSCD educator in state schools since 2021.

Amanda Bezzina, PhD, is a Lecturer at the Institute for Education. She is a Teaching Practice tutor, and a dissertation examiner and supervisor. For the past years, she was the Head of Department in Personal, Social and Career Development within the Ministry for Education and Employment. For several years, she was a PSCD teacher, a mentor and a guidance teacher. She is also a Visiting Assistant Lecturer at the University of Malta. She is a member of the Board of Governors at the Malta College of Arts, Science and Technology. For ten years, she was the President of the Malta PSD Teachers' Association. Her areas of specialisation and research interests are holistic education, youth and community development, effective teaching strategies, facilitation and teaching skills.

References

- Ahmad, S., Wasim, S., Irfan, S., Gogoi, S., Srivastava, A., & Farheen, Z. (2019). Qualitative v/s. quantitative research – a summarized review. *Journal of Evidence Based Medicine and Healthcare*, 6(43), 2828-2832. <https://doi.org/10.18410/jebmh/2019/587>
- Akpan, J. P., & Beard, L. A. (2016). Using constructivist teaching strategies to enhance academic outcomes of students with special needs. *Universal Journal of Educational Research*, 4(2), 392-398. <https://doi.org/10.13189/ujer.2016.040211>
- Amedeo, D., Golledge, R. G., & Stimson, R. J. (2009). *Person Environment Behavior Research: Investigating activities and experiences in spaces and environments*. Guilford.

- Ary, D., Cheser Jacobs, L., Sorensen Irvine, C. K., & Walker, D. A. (2019). *Introduction to Research in Education* (10th ed.). Cengage Learning.
- Aspers, P., & Corte, U. (2019). What is qualitative in qualitative research. *Qualitative Sociology*, 42, 139-160. <https://doi.org/10.1007/s11133-019-9413-7>
- Bada, S. O., & Olusegun, S. (2015). Constructivism learning theory: A paradigm for teaching and learning. *Journal of Research & Method in Education*, 5(6), 66-70. <https://doi.org/10.9790/7388-05616670>
- Baldwin, C., & Linnea, A. (2010). *The Circle Way: A leader in every chair*. Berrett-Koehler Publishers.
- Baumeister, R. F., & Finkel, E. J. (2010). *Advanced Social Psychology: The state of the science*. Oxford University Press.
- Benedict, M. E., & Hoag, J. (2004). Seating location in large lectures: Are seating preferences or location related to course performance? *The Journal of Economic Education*, 35(3), 215-231. <https://doi.org/10.3200/JECE.35.3.215-231>
- Bezzina, A. (2018). Personal and social development within a European neo-liberal Maltese education system. In M. Attard Tonna & J. Madalińska-Michalak (Eds.). In *Teacher education policy and practice – International perspectives and inspirations* (pp. 288–314). Foundation for the Development of Education. Retrieved November 2023, from <https://1-tonna-madalinska-michalak-teacher-education-policy-and-practice20200505-89592-18o5jmc-libre.pdf>
- Bezzina, A., & Camilleri, S. (2020). 'Happy Children' A project that has the aim of developing emotional literacy and conflict resolution skills. A Maltese case study. *Pastoral Care in Education*, 39(1), 48-66. <https://doi.org/10.1080/02643944.2020.1774633>
- Bezzina, A. (2022). "I feel what you are feeling": Neural processes for empathy and its impact on academic and holistic achievement. *Malta Journal of Education*, 3(1), 37-66. <https://doi.org/10.62695/dgml4574>
- Bezzina, A., Falzon, R., & Muscat, M. (2015). Emotional intelligence and the Maltese personal and social development model. In L. Zysberg, & S. Raz (Eds.), *Emotional Intelligence* (pp. 151-171). Nova Science Publishers, Inc.
- Bickmore, K., & Parker, C. (2014). Constructive conflict talk in classrooms: Divergent approaches to addressing divergent perspectives. *Theory & Research in Social Education*, 42(3), 291-335. <https://doi.org/10.1080/00933104.2014.901199>
- Bleiker, J., Morgan-Trimmer, S., Knapp, K., & Hopkins, S. (2019). Navigating the maze: Qualitative research methodologies and their philosophical foundation. *Radiography*, 25, S4-S8. <https://doi.org/10.1016/j.radi.2019.06.008>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp0630a>
- Busetto, L., Wick, W., & Gumbinger, C. (2020). How to use and assess qualitative research methods. *Neurological Research and Practice*, 2(1), 1-10. <https://doi.org/10.1186/s42466-020-00059-z>
- Byers, T., Imms, W., & Hartnell-Young, E. (2018). Comparative analysis of the impact of traditional versus innovative learning environment on student attitudes and learning outcomes. *Studies in Educational Evaluation*, 58, 167-177. <https://doi.org/10.1016/j.stueduc.2018.07.003>
- Camilleri, S., & Bezzina, A. (2021). Learning in a circle - Apparent simplicity. *Pastoral Care in Education*, 40(4), 373-390. <https://doi.org/10.1080/02643944.2021.1938645>
- Camilleri, S., & Bezzina, A. (2022). Adopting the circle pedagogy - relatedness, autonomy and competence. *Pastoral Care in Education*, 41(4), 449-472. <https://doi.org/10.1080/02643944.2022.2148173>

- Camilleri, S., Caruana, A., Falzon, R., & Muscat, M. (2012). The promotion of emotional literacy through Personal and Social Development: The Maltese experience. *Pastoral Care in Education*, 30(1), 19–37. <https://doi.org/10.1080/02643944.2011.651223>
- Cefai, C., Ferrario, E., Cavioni, V., Carter, A., & Grech, T. (2014). Circle time for social and emotional learning in primary school. *Pastoral Care in Education*, 32(2), 116–130. <https://doi.org/10.1080/02643944.2013.861506>
- Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed.). Routledge.
- Creswell, J. W. (2014). *Research Design: Qualitative, quantitative and mixed methods approaches* (4th ed.). Sage.
- Depear, M. (2021). Positive classroom environments and rule setting. *Academia Letters*, Article 3696. <https://doi.org/10.20935/AL3696>
- Douglas, D., & Gifford, R. (2010). Evaluation of the physical classroom by students and professors: A lens model approach. *Educational Research*, 43(3), 295–309. <https://doi.org/10.1080/00131880110081053>
- Ecclestone, K., & Hayes, D. (2009). *The Dangerous Rise of Therapeutic Education*. Routledge.
- Enworo, O. C. (2023). Application of Guba and Lincoln's parallel criteria to assess trustworthiness of qualitative research on indigenous social protection systems. *Qualitative Research Journal*, 23(4), 372–384. <https://doi.org/10.1108/QRJ-08-2022-0116>
- Erwin, J. C. (2004). *The Classroom of Choice: Giving students what they need and getting what you want*. ASCD.
- Evanovich, L. L., Martinez, S., Kern, L., & Haynes, R. D. (2020). Proactive Circles: A practical guide to the implementation of a restorative practice. *Preventing School Failure: Alternative Education for Children and Youth*, 64(1), 28–36. <https://doi.org/10.1080/1045988X.2019.1639128>
- Falout, J. (2014). Circular Seating Arrangements: Approaching the social crux in language classrooms. *Studies in Second Language Learning and Teaching*, 4(2), 275–300. <https://doi.org/10.14746/ssl.2014.4.2.6>
- Falzon, R., & Muscat, M. (2009). Personal and social development in a small island community: Presenting the Maltese democratic model. In K. Kumpulainen, & A. Toom (Eds.), *ETEN 18* (pp. 29–40). University of Helsinki.
- Falzon, R., Frendo, C., & Muscat, M. (2019). Paving the way for counselling? The link between Maltese PSD model and counselling. *Journal of School-Based Counseling Policy and Evaluation*, 1(2), 8–26. <https://doi.org/10.25774/7pa6-x214>
- Fernando, S. Y., & Marikar, F. M. (2017). Constructivist teaching/learning theory and participatory teaching methods. *Journal of Curriculum and Teaching*, 6(1), 110–122. <https://doi.org/10.5430/jct.v6n1p110>
- Golder, J. (2018). Constructivism: A paradigm for teaching and learning. *International Journal of Research and Analytical Reviews*, 5(3), 678–686. <https://ijrar.org/papers/IJRAR1903214.pdf>
- Heron, J. (1999). *The Complete Facilitator's Handbook*. Stylus Publishing.
- High, A. J. (2017). Using restorative practices to teach and uphold dignity in an American school district. *McGill Journal of Education*, 52(2), 525–534. <https://doi.org/10.7202/1044479ar>
- Janis, I. (1972). *Victims of Groupthink: A psychological study of foreign-policy decisions and fiascoes*. Houghton Mifflin Company.
- Jankowska, M., & Atlay, M. (2008). Use of creative space in enhancing students' engagement. *Innovations in Education and Teaching International*, 45(3), 271–279. <https://doi.org/10.1080/14703290802176162>
- Khatib, M., Sarem, S. N., & Hamidi, H. (2013). Humanistic education: Concerns, implications and applications. *Journal of Language Teaching and Research*, 4(1), 45–51. <https://doi.org/10.4304/jltr.4.1.45-51>

- Knapp, M., Hall, J., & Horgan, T. (2013). *Nonverbal Communication in Human Interaction* (8th ed.). Cengage Learning.
- Kohn, A. (2015). *Progressive Education: Why it's hard to beat, but also hard to find*. Bank Street College.
- Kolb, A., & Kolb, D. (2018). Eight important things to know about the Experiential Learning Cycle. *Australian Educational Leader*, 40(3), 8-14. Retrieved August 2023, from <https://search.informit.org/doi/10.3316/informit.192540196827567>
- Kolb, D. A. (1984). *Experiential Learning: Experience as the source of learning and development*. Prentice Hall.
- Kong, Y. (2021). The role of experiential learning on students' motivation and classroom engagement. *Frontiers in Psychology*, 12, 1-4. <https://doi.org/10.3389/fpsyg.2021.771272>
- Lavery, N. (2016). *The Power of Circles: A guide to building peaceful, just, and productive communities - one circle at a time*. Resource Publications.
- Leach, T., & Lewis, E. (2012). Children's experiences during circle-time: A call for research-informed debate. *Pastoral Care in Education*. <https://doi.org/10.1080/02643944.2012.702781>
- Lincoln, Y., & Guba, E. (1985). *Naturalistic Inquiry*. Sage.
- Lown, J. (2002). Circle time: The perceptions of teachers and pupils. *Educational Psychology in Practice*, 18(2), 93-102. <https://doi.org/10.1080/02667360220144539>
- Marx, A., Fuhrer, U., & Hartig, T. (1999). Effects of classroom seating arrangements on children's question-asking. *Learning Environments Research*, 2, 249-263. <https://doi.org/10.1023/A:1009901922191>
- Mosley, J., & Niwano, Z. (2007). An informal report on the use of Jenny Mosley's whole school quality circle time model in Dublin primary schools. Unpublished.
- Muscat, M. (2006). *Evaluation of the PSD Programme* [Unpublished M.Ed. dissertation]. University of Malta.
- Noble, H., & Smith, J. (2015). Issues of validity and reliability in qualitative research. *Evidence-based Nursing*, 18(2), 34-35. <https://doi.org/10.1136/eb-2015-102054>
- Nyumba, T. O., Wilson, K., Derrick, C. J., & Mukherjee, N. (2018). The use of focus group discussion methodology: Insights from two decades of application in conservation. *Methods in Ecology and Evolution*, 9(1), 20-32. <https://doi.org/10.1111/2041-210X.12860>
- Parker-Shandal, C. (2022). Circles: A pedagogical praxis for inclusion and resistance. In *Restorative Justice in the Classroom: Liberating Students' Voices Through Relational Pedagogy* (pp. 1-38). Springer International Publishing. https://doi.org/10.1007/978-3-031-16590-0_1
- Pease, A., & Pease, B. (2004). *The Definitive Book of Body Language*. Orion Books Ltd.
- Pervin, N., & Mokhtar, M. (2022). The Interpretivist research paradigm: A subjective notion of a social context. *International Journal of Academic Research in Progressive Education and Development*, 11(2), 419-428. <https://doi.org/10.6007/IJARPED/v11-i2/12938>
- Pham, L. T. (2018). *Qualitative approach to research. A review of advantages and disadvantages of three paradigms: Positivism, interpretivism and critical inquiry*. University of Adelaide. <https://doi.org/10.13140/RG.2.2.13995.54569>
- Pranis, K. (2015). *Little Book of Circle Processes: A new/old approach to peacemaking*. Simon and Schuster.
- Rahman, M. (2016). The advantages and disadvantages of using qualitative and quantitative approaches and methods in language "Testing and Assessment" research: A literature review. *Journal of Education and Learning*, 6(1), 102-112. <https://doi.org/10.5539/jel.v6n1p102>

- Rettke, H., Pretto, M., Spichiger, E., Frei, I., & Spirig, R. (2018). Using reflexive thinking to establish rigor in qualitative research. *Nursing Research*, 67(6), 490–497. <https://doi.org/10.1097/NNR.0000000000000307>
- Riess, H. (2017). The science of empathy. *Journal of Patient Experience*, 4(2), 74–77. <https://doi.org/10.1177/2374373517699267>
- Rivero, V. (2013). Tim Springer: A new mobile approach to the learning space. Creating a thoughtfully done interactive learning space to enhance student creativity, engagement, collaboration and productivity. *Internet@schools*, 20(4), 12–15.
- Roffey, S. (2006). *Circle time for emotional literacy*. Sage.
- Roffey, S., & McCarthy, F. (2013). Circle Solutions, a philosophy and pedagogy for learning positive relationships: What promotes and inhibits sustainable outcomes? *The International Journal of Emotional Education*, 5(1), 36–55. <https://www.um.edu.mt/library/oar/bitstream/123456789/6148/1/vol5i1p3.pdf>
- Rogers, C. (1961). *On Becoming a Person: A psychotherapist's view of psychotherapy*. Houghton Mifflin.
- Sawers, K., Wicks, D., & Mvududu, N. (2016). What drives student engagement: Is it learning space, instructor behavior, or teacher philosophy? *Journal of Learning Spaces*, 5(2), 26–38. https://www.researchgate.net/publication/309591602_What_Drives_Student_Engagement_Is_it_Learning_Space_Instructor_Behavior_or_Teaching_Philosophy
- Schnitzler, T., & Fuchs, T. (2023). Autism as a disorder of affective empathy. *Psychopathology*, 57(1), 53–62. <https://doi.org/10.1159/000533655>
- Schumann, K., Zaki, J., & Dweck, C. S. (2014). Addressing the empathy deficit: Beliefs about the malleability of empathy predict effortful responses when empathy is challenging. *Journal of Personality and Social Psychology*, 107(3), 475–493. <https://doi.org/10.1037/a0036738>
- Shunk, D. (2012). *Learning Theories: An educational perspective*. Pearson Education, Inc. (Original work published 1991).
- Sharan, N. N., Toet, A., Mioch, T., Niamut, O., & van Erp, J. B. (2022). The relative importance of social cues in immersive mediated communication. *Human Interaction, Emerging Technologies and Future Systems V: Proceedings of the 5th International Virtual Conference on Human Interaction and Emerging Technologies, IHiet 2021, August 27-29, 2021 and the 6th IHiet: Future Systems (IHiet-FS 2021), October (pp. 491-498)*. Springer International Publishing. https://doi.org/10.1007/978-3-030-85540-6_62
- Speyer, L. G., Brown, R. H., Camus, L., Murray, A. L., & Auyeung, B. (2022). Alexithymia and autistic traits as contributing factors to empathy difficulties in preadolescent children. *Journal of Autism and Developmental Disorders*, 52(2), 823–834. <https://doi.org/10.1007/s10803-021-04986-x>
- Stutzman Amstutz, L., & Mullet, J. (2014). *The Little Book of Restorative Discipline for Schools: Teaching responsibility; creating caring climates*. Good Books.
- Tew, M. (1998). Circle Time: A much-neglected resource in secondary schools? *Pastoral Care in Education*, 16(3), 18–27. <https://doi.org/10.1111/1468-0122.00098>
- Tews, M., Jackson, K., Ramsay, C., & Michel, J. (2015). Fun in the college classroom: Examining its nature and relationship with student engagement. *College Teaching*, 63, 16–26. <https://doi.org/10.1080/87567555.2014.972318>
- Thomson, S. (2011). Qualitative research: Validity. *Journal of Administration and Governance*, 6(1), 77–82. https://www.researchgate.net/profile/Stanley-Thomson/publication/266483160_Qualitative_Research_Validity/links/57cdf1ee08aed67896ffc88f/Qualitative-Research-Validity.pdf

-
- Treue, M. (2021). Study of humanistic education: Concerns, implications, and applications. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, 12(11), 6303-6310. <https://www.turcomat.org/index.php/turkbilmat/article/view/7005/5720>
- Tulasi, L., & Rao, C. (2021). A review of humanistic approach to student centred instruction. *The Review of Contemporary Scientific and Academic Studies*, 1(1), 1-5. https://www.researchgate.net/profile/Laxmi-Rao-4/publication/359135657_A_Review_of_Humanistic_Approach_to_Student_Centred_Instruction/links/6229ea6897401f51d20bd7d2/A-Review-of-Humanistic-Approach-to-Student-Centred-Instruction.pdf
- Wang, Y., Shen, Y., Liu, Z., Liang, P., Zadeh, A., & Morency, L. (2019). Words can shift: Dynamically adjusting word representations using nonverbal behaviors. *Proceedings of the AAAI Conference on Artificial Intelligence*, 33, 7216-7223. <https://doi.org/10.1609/aaai.v33i01.33017216>
- Wannarka, R., & Ruhl, K. (2008). Seating arrangements that promote positive academic and behavioural outcomes: A review of empirical research. *Support for Learning*, 23(2), 89-93. <https://doi.org/10.1111/j.1467-9604.2008.00375.x>
- Winters, A. (2014). Using talking circles in the classroom. Heartland Community College. <https://www.heartland.edu/documents/idc/talkingcircleclassroom.pdf>
- Zainuddin, N., & Idrus, R. (2018). Designing learning spaces for effective learning. *The Maldives National Journal of Research*, 6(1), 7-18. <http://saruna.mnu.edu.mv/jspui/handle/123456789/429>
- Zull, J. (2002). *The art of changing the brain: Enriching the practice of teaching by exploring the biology of learning*. Stylus Publishing, LLC.
- Zull, J. (2011). *From brain to mind: Using neuroscience to guide change in education*. Stylus publishing, LLC.