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Early years and key stage 1 teachers' attitudes towards outdoor and online play

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ABSTRACT

Children's opportunities for outdoor play have declined (Nash, D. 2018. *The Construction of the Decline of Children's Outdoor Play as a Social Problem in the UK*. Canterbury: Canterbury Christ Church University) whilst opportunities for online play are increasing (Berrett, B., J. Murphy, and J. Sullivan. 2012. "Administrator Insights and Reflections: Technology Integration in Schools." *The Qualitative Report* 17 (1): 200–221). This study investigated early years/key stage 1 teachers' attitudes towards outdoor and online play utilising (Rosenberg, M. J., and C. I. Hovland. 1960. "Cognitive, Affective, and Behavioural Components of Attitudes." In *Attitude Organization and Change*, edited by M. Rosenberg, C. Hovland, W. McGuire, R. Abelson, and J. Brehm, 1–14. Connecticut: Yale University Press) tripartite model of attitudes. An online survey was employed with 30 early years/key stage 1 teachers, gaining an understanding of teachers' attitudes towards outdoor and online play. In summary, results show there is significant variation in teachers' attitudes towards outdoor and online play, whilst children's opportunities for outdoor and online play within UK early education also remain infrequent and varied.

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Introduction

Literature (e.g. Becker et al. 2018; Dietze and Kashin 2019; Nash 2018) over the last two decades has heavily documented the outdoor play decline. For instance, links between the outdoors and a plethora of learning, development, and wellbeing benefits for children are underlined within research (e.g. Dylan et al. 2020; Mehmet, 2018; Sandseter et al. 2020). Outdoor play, for the purpose of this study, was defined as 'active-free play, or unstructured physical activity, that takes place outdoors in the child's free time' (Veitch et al. 2006, 384). The inclusion of outdoor play within the Early Years Foundation Stage (EYFS) shows the optimal importance placed upon an outdoor play by the Department for Education. For instance, the EYFS states that every setting must provide an accessible, outdoor area or if this is not possible, must provide and plan daily outdoor activities (DfE 2021). Despite efforts to raise the profile and improve knowledge of outdoor learning importance, and the EYFS statutory requirement, the most recent outdoor play literature continues to report a decline (Parent et al. 2021; Sandseter, Kleppe, and Sando 2021).

Increased technology use is heavily credited for children's discouragement from outdoor play (e.g. Aktas Arnas and Saribas 2020; Dietze and Kashin 2019; Nash 2018). Slutsky and DeShetler (2017) state that children's play has deviated into play encompassing technology, and that new

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forms of play are the result of this, namely 'online play'. According to Sakr (2020), due to online play being a new form of play, there is not an established definition. Therefore, for the purpose of this study, a unique definition was generated. Thus, online play was defined as 'unstructured, free play with a technological device, or devices, in the child's free time'. This was based on Van der Westhuizen and Hannaway's (2021) recent finding that children participated in online play through use of technology devices during free play at school. The definition was also compared to the Veitch et al. (2006) outdoor play definition.

The use of technology for twenty-first century learning and teaching is essential in making a lasting impact on how children learn, for supporting children's learning and development and for equipping children with the knowledge to become active members of the digital world (Aldhafeeri, Palaiologou and Folorunsho 2016; Kalaš 2010). Technology use is reported to be gradually increasing within the learning process (Berrett, Murphy and Sullivan 2012; Inan and Lowther 2010). However, it is also argued that technology use within education remains infrequent and varied (e.g. Aldhafeeri, Palaiologou and Folorunsho 2016; Blackwell et al. 2013; Fraillon et al. 2019). Many benefits of online play are discussed within the literature, including the use of technology to increase student collaboration (e.g. Behnamnia et al. 2020; Costley 2014) and facilitate the development of communication, creativity and problem-solving skills (e.g. Aldhafeeri, Palaiologou and Folorunsho 2016; Nikolopoulou and Gialamas 2015). However, there is concerns surrounding the consequences of children's ICT use. For instance, it is suggested that young children are not ready for online play due to their age (Arnott 2013; Hatzigianni and Kalaitzidis 2018).

Teacher attitudes

It is suggested that whilst outdoor play is declining, online play is gradually increasing, although varied within settings. It is stated within the literature that teachers' attitudes predict, reflect and determine the types of play and learning opportunities that are afforded to children within settings (e.g. Dietze and Kashin 2019; Ertmer et al. 2012; Tondeur et al. 2016). It is therefore suggested that teachers' attitudes affect children's opportunities for outdoor play (e.g. Ebbeck, Yim and Warrier 2019; Dietze and Kashin 2019; Hunter et al. 2019). Likewise, it is also suggested that teachers' attitudes affect children's opportunities for online play (e.g. Blackwell, Lauricella and Wartella 2014; Börnert-Ringleb, Casale and Hillenbrand 2021; Nikolopoulou and Gialamas, 2015).

An attitude can be defined as 'a response to an antecedent stimulus or attitude object' (Breckler 1984, 1191). An attitude object is defined by Vogel and Wänke (2016, 3) as 'anything a person discriminates or holds in mind'. In this instance, the attitude objects are outdoor play and online play. It is stated that an attitude is compiled of three components; affective, behavioural and cognitive (Breckler 1984; Rosenberg and Hovland 1960). The three components are summarised within the tripartite model of attitudes by Rosenberg and Hovland (1960).

Figure 1 shows that affect, behaviour and cognition are independent elements of an attitude, which infer together to represent an attitude (Breckler 1984). This represents an individuals' experience, with some degree of positive correlation between each component (Breckler 1984; Vogel and Wänke 2016). An affective response refers to an emotional response based on feelings, whereas a behavioural response refers to actions, responses and intentions related to the attitude object, and a cognitive response refers to the beliefs and thoughts regarding the attitude object (Breckler 1984; Fabrigar, Macdonald and Wegener 2005). The three components vary on an evaluative continuum, with affective responses varying from pleasurable to unpleasurable, whilst behavioural and cognitive responses vary from favourable to unfavourable (Breckler 1984).

Outdoor play

In regard to outdoor play, literature evidences a mix of affective responses, ranging from teachers acknowledging children's enjoyment of outdoor play (Brooker et al. 2010; Oikonomou 2012), to

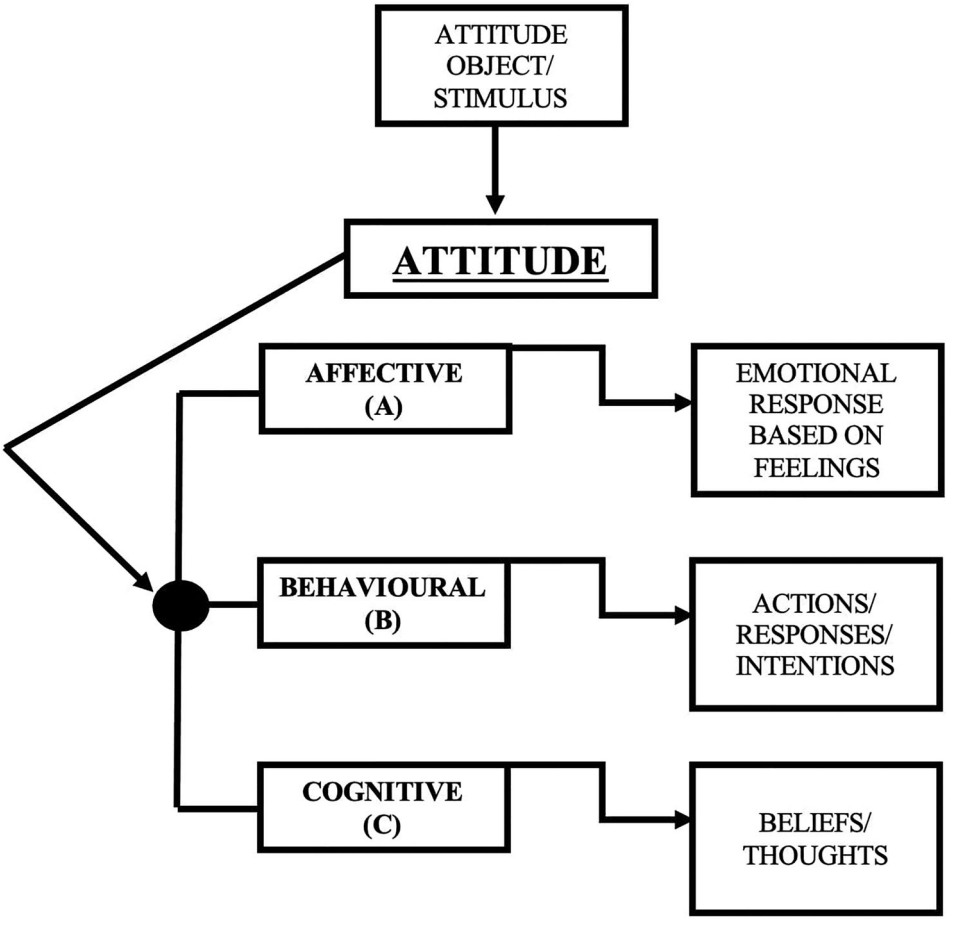

Figure 1. The three components of attitude.

teachers experiencing feelings of anxiety regarding health and safety and the risk of injury (Oikonomou 2012; McClintic and Petty 2015).

However, dissimilar to affective responses, behavioural responses towards outdoor play were predominantly unfavourable. For instance, Oikonomou (2012) conducted a study with eight primary and preschool Greek teachers and found that only a quarter of teachers ($n = 2$) offered outdoor play opportunities. This raises the question as to whether teachers are eager to encourage outdoor play or whether there are restricting factors for the implementation of outdoor play. However, as this study was completed with Greek teachers, and due to the small sample size, the findings cannot be generalised to UK teachers and education settings.

Literature such as Ernst and Tornabene (2012), and more recently, Erdem (2018) and Tuuling, Oun and Ugaste (2019), argue that teachers acknowledge there is benefits of outdoor play. However, other studies (Blanchet-Cohen and Elliot 2011; Dyment and Coleman 2012; McClintic and Petty 2015) found that teachers had limited perceptions of the outdoors. Therefore, teachers' cognitive responses are mixed according to the literature.

Online play

Literature (Aubrey and Dahl 2014; Behnamnia et al. 2020) suggests that teachers' affective responses to online play are pleasurable, arguing that teachers recognise that children enjoy online play, due to online play potential in stimulating imagination and developing creativity through art, music, dance

and literacy applications. However, the use of technology varies, meaning that teachers' behavioural responses are favourable and unfavourable. For instance, 65.8% of UK teachers would like to increase the use of technology for online play (Formby 2014). However, Hatzigianni and Kalaitzidis (2018) state that teachers do not provide online play opportunities. Fraillon et al. (2019) found that less than 50% of teachers stated they used the technology frequently. However, this did not include UK teachers. Others within literature (Behnamnia et al. 2020; Lam and Tong 2012; Lucas et al. 2021) state that educators are progressively using technology and actively promoting online play.

An and Cao (2016) and Grove, Bourgonjon and Looy (2012) state that online play is rarely considered as a valued asset to education, with teachers believing that online play will not fit into their routines. Therefore, suggesting an unfavourable cognitive response. However, Formby (2014) found UK EYFS practitioners believed technology use was central to children's future lives, therefore suggesting a favourable cognitive response. Despite teachers' responses, favourable or unfavourable, the national curriculum (NC) discusses the importance of children becoming competent and confident technology users and the importance of children becoming active participants within our digital world (DfE 2014). Whilst this suggests that the Department for Education places importance upon the use of technology for online play, the EYFS remains relatively silent regarding technology use. It is, however, stated that children's understanding of the diverse technology available should be fostered (DfE 2021). However, 'online play' is not included within the NC for primary schools or the EYFS.

Conclusions from the literature suggest that teachers' attitudes towards outdoor play and online play are considerably mixed. However, there is a significant gap within literature surrounding recent UK studies of teachers' attitudes, specifically regarding outdoor and online play and particularly with early years (EY) and Key Stage 1 (KS1) teachers. A significant number of studies of outdoor and online play have been executed, however not within the UK specifically. For instance, the majority of existing studies have been conducted within northern Europe and USA, therefore the applicability of their findings to the UK is undetermined. Existing literature (e.g. Erdem 2018; Palaiologou 2016; Fox and Avramidis 2003) also predominantly studies KS2 primary teachers, secondary and higher education teachers or teachers of under 3s. The most recent UK study was conducted more than five years ago. This is significant as, as Burner (2018) states, times change and therefore, the ways that we teach and learn also change. Therefore, the findings of previous UK studies may not be generalised to teachers' attitudes within education today. Despite literature (e.g. Aktas Arnas and Saribas 2020; Dietze and Kashin 2019; Nash 2018) claims that online play has impacted upon children's outdoor play opportunities, there is a significant gap in research amalgamating the two types of play within a single study simultaneously. Also, current literature discusses that there is a need for further investigation into the frequency of outdoor play (Parent et al., 2021; Renick 2009) and online play, and the use of technology within classrooms (Blackwell, Lauricella and Wartella 2014; Palaiologou 2016).

A UK investigation into EY and KS1 teachers' attitudes to outdoor and online play was therefore necessitated. An exploratory approach to the research was adopted due to the identified gaps in research and the lack of knowledge regarding EY and KS1 teachers' attitudes to outdoor and online play (Swedberg 2018). Therefore, this exploratory research primarily aimed to investigate the attitudes held by EY and KS1 teachers regarding outdoor and online play. This research also aimed to gain an understanding of the occurrence of both types of play within EY and KS1.

The study aimed to answer the research questions: 'what are teachers' attitudes towards outdoor play?', 'what are teachers' attitudes towards online play?' and 'how do contemporary teachers' views compare with that of literature?'.

Methodology

Mixed method approach

A mixed methods approach was adopted to attempt to address the research questions. This approach, therefore, acknowledged the strengths, of each data type, whilst weaknesses were

neutralised (Biesta 2012; Creswell 2014). Through a pragmatic approach, the RQs were placed central, and pluralistic approaches were utilised to derive understanding (Tashakkori and Teddlie 2010). Existing literature (e.g. Backfisch et al. 2021; McClintic and Petty 2015; Nikolopoulou and Gialamas 2015) surrounding teachers' attitudes of outdoor and online play recommends that future research utilises an MMA, justifying the approach. The lack of knowledge surrounding teachers' attitudes towards outdoor and online play within EY and KS1 suggests further knowledge is required. The need to know more about the research topic was one of the foremost reasons for conducting this exploratory study. The MMA was deemed the most suitable approach, as the MMA provides greater knowledge of the research areas than either data type alone (Biesta 2012; Denscombe 2014). A parallel mixed methods design was adopted (QUAN + QUAL), converging together quantitative and qualitative data (Morse 1991; Johnson, Onwuegbuzie and Turner 2007).

Qualitative and quantitative data were collected independently, parallel to each other and then converged within analysis to answer RQs. This method establishes a more holistic approach to research (Creswell 2014). Findings were mutually corroborated and compared through one data collection method, a self-administered online survey (Cohen, Manion and Morrison 2018). This allowed 'between method methodological triangulation', as labelled by Denzin (1978). It is suggested that, through triangulation and the MMA, a superior account of the research area is acquired, as the gaps left by one data type are filled by the other (Bryman 2012). Through triangulation, data accuracy is increased with greater creditability, data is of greater reliability, bias is reduced and validity is improved (Cohen, Manion and Morrison 2018; Denscombe 2014).

Online survey

The data collection method for this study was an internet survey, created through Qualtrics and distributed via social media. Due to the COVID-19 pandemic and social distancing rules, possible research methods were reduced. Therefore, an online survey was deemed the most appropriate data collection method as no personal contact was required. An asynchronous online survey was employed, which allowed participants convenience, allowing survey completion at a time and place that suited them (Lefever, Dal and Matthiasdottir 2007; Regmi et al. 2016). An online survey has the ability to target large populations and collect large quantities of data effectively (Bryman 2012; Regmi et al. 2016). Data from the survey was also easily exported into software for data analysis, therefore less time consuming for analysis (Cohen, Manion and Morrison 2018).

The survey utilised closed demographic questions regarding teachers' experience. Subsequently, a mixture of open and closed questions enabling qualitative and quantitative data collection were utilised. Closed questions collected quantitative data, and were multiple-choice to improve response rates, allowing a quick and easy decision (Cohen, Manion and Morrison 2018). Open questions were interspersed decreasing the chances of respondent fatigue and collected qualitative data through an invitation of personal comments and opinions, particularly of use in an exploratory study (Cohen, Manion and Morrison 2011). All questions forced a response from participants, therefore ensuring high response rates (Bryman 2012).

Research sample

Following ethical approval, a sample of 30 Lincolnshire EY and/or KS1 teachers was obtained through convenience sampling. A convenience sample was deemed appropriate as Stopher (2012) states that convenience samples rely heavily on internet research. Due to COVID-19, convenience sampling was the easiest method to access participants. It is also not possible to include every EY and KS1 teacher within the sample, as the population is huge (Etikan et al. 2016). A sample of 30 participants is the minimum sample size deemed appropriate if the statistical analysis is planned, and to generate adequate data to answer RQs, according to Cohen, Manion and Morrison (2018) and Delice (2010). Consequently, due to constraints of COVID-19, a sample of 30 was deemed

appropriate. Due to these sampling constraints, findings from the data could only be generalised to the sample utilised (Bryman 2012; Cohen, Manion and Morrison, 2018). Nevertheless, sample consistency throughout the study allowed comparisons and inferences to be made between qualitative and quantitative data to answer RQs.

The tripartite model of attitudes

This study utilised the tripartite model of attitudes by Rosenberg and Hovland (1960) as an analytical framework to understand teachers' attitudes to outdoor and online play. Participants, as part of the survey, were asked to rate statements, three for each type of play, each relating to each of the three attitude components. This way, each component of attitude was measured individually, recommended by Breckler (1984) and Fabrigar, Macdonald and Wegener (2005). Each component was then evaluated, based on the continuum given by Breckler (1984). The evaluations were then converged to create a holistic understanding of teachers' attitudes towards each play type.

Findings

The overall response rate for the survey was 100%. The high response rate does not diminish the effect of small sample size on the research generalisability. However, the sample size was deemed appropriate to understand teachers' attitudes regarding outdoor and online play (Cohen, Manion and Morrison 2018; Delice 2010).

Qualitative

Quantitative analysis was conducted through SPSS (version 26). Non-parametric tests were conducted with the data collected due to the small sample size ($n = 30$). Of the 30 participants, 83% taught EYFS and 70% taught KS1.

In order to gain an understanding of teachers' attitudes regarding outdoor and online play, participants were given three statements, each relating to one of three attitude components, in accordance with the tripartite model of attitudes (Rosenberg and Hovland 1960). Participants were asked to select an anchor statement to indicate whether they agreed, neither agreed nor disagreed or disagreed with each statement.

Outdoor play

Affective 100% ($n = 30$) agreed with the affective statement 'the children in my class enjoy outdoor play', so a pleasurable response.

Behavioural 76.7% ($n = 23$) disagreed with the behavioural statement 'the children in my class take part in outdoor play every day', therefore an unfavourable response. Only 23.3% ($n = 7$) agreed and had a favourable response.

Cognitive 100% ($n = 30$) agreed to the cognitive statement 'outdoor play should be an integral part of the curriculum', so 100% had a favourable response.

Online play

Affective 93.3% ($n = 28$) agreed with the affective statement 'the children in my class enjoy online play', therefore had a pleasurable response. However, 6.7% ($n = 2$) elected that they neither agreed nor disagreed with the statement, consequently had neither a pleasurable nor unpleasurable response.

Behavioural 90% ($n = 27$) disagreed with the behavioural statement 'the children in my class take part in online play every day', so had an unfavourable response. Despite this, 6.7% ($n = 2$) neither agreed nor disagreed, therefore had neither a favourable nor unfavourable response. Only 3.3% ($n = 1$) agreed with the statement and had a favourable response.

Cognitive 43.3% ($n = 13$) agreed with the cognitive statement 'use of technology for online play must be integrated into the curriculum'. Therefore, 43.3% had a favourable response. However, 40% ($n = 12$) disagreed, therefore, held an unfavourable response; and 16.7% ($n = 5$) neither agreed nor disagreed with the statement, therefore, had neither a favourable nor unfavourable response.

Technology use A further multiple-choice question was utilised in the online survey regarding the use of technology for online play within EY and KS1 classrooms. The justification for this lies in literature calling for an investigation into if technology is being used in education, and how often it is being used (Blackwell, Lauricella and Wartella 2014; Palaiologou 2016). A closed, multiple-choice question and responses employed by Blackwell et al. (2013) were utilised to investigate this. The use of existing questions within an online survey is recommended by Bryman (2012). Participants responded to the question 'How often is technology used for online play within your classroom?'.

Table 1 shows teachers' varied responses regarding technology use for online play. The majority of teachers selected 'once a week', however, this only equalled 33.3% ($n = 10$), one-third of the sample. The responses to this question were scattered across the response range as shown in Table 1. 23.3% of teachers ($n = 7$) selected '2-3 times a month', 16.7% ($n = 5$) selected '3-4 times a week' and another 16.7% ($n = 5$) selected 'less than once a month'. Finally, 3.3% ($n = 1$) selected 'never', 3.3% ($n = 1$) selected 'once a month' and 3.3% ($n = 1$) selected that they use technology for online play 'every day'.

Qualitative

Inductive thematic analysis of the qualitative data was conducted. Initially, line-by-line coding was conducted, and then, open codes were generated and ascribed to the data. The process of open coding involved organising the data into segments and writing a coding label, that ultimately described the segment (Creswell 2014). Once the dataset was coded, codes were collected into themes inductively. Themes were then reviewed, before a reread. Themes were then clarified, defined, and named, with some themes subsequently split into sub-themes to present data accordingly (Creswell 2014).

Outdoor play

Participants were asked an open question of 'why?' subsequent to the cognitive statement 'outdoor play should be an integral part of the curriculum'. Participant responses varied in length and theme.

Table 2 shows the two themes identified, 'benefits of outdoor play' and 'limited access to outdoor play'. These themes are then split into sub-themes, as Table 2 illustrates. Table 2 shows the number of participants referring to each theme and sub-theme, and examples of qualitative data. More participants referred to theme one ($n = 22$) than theme two ($n = 12$). This may be due to 100% ($n = 30$) of participants agreeing that 'outdoor play should be an integral part of the curriculum'. However, there was evidence to justify each sub-theme within the qualitative data. Many respondents referred to more than one sub-theme within their individual responses.

Table 1. Technology utilisation for online play within EY and KS1 classrooms.

How often is technology used for online play within your classroom?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	1	3.3	3.3	3.3
	Less than once a month	5	16.7	16.7	20.0
	Once a month	1	3.3	3.3	23.3
	2-3 times a month	7	23.3	23.3	46.7
	Once a week	10	33.3	33.3	80.0
	3-4 times a week	5	16.7	16.7	96.7
	Every day	1	3.3	3.3	100.00
	Total	30	100.0	100.0	

Table 2. Outdoor play thematic analysis.

Theme	Freq.	Sub-themes	Freq.	Examples in data
Benefits of outdoor play	22 of 30 (73%)	Learning/ development benefits	22 of 30 (73%)	'[Outdoor play] allows different opportunities for learning and development … allows more interactions' (#4)
		Children's enjoyment	13 of 30 (43%)	'[Children] enjoy spending time outside and having time to be free' (#18)
Limited access to outdoor play	12 of 30 (40%)	Time for outdoor play	7 of 30 (23%)	'We don't have as much time as we used to have to allow time for play outdoors' (#14)
		Space for outdoor play	5 of 30 (16%)	'Access to a quality outdoor environment is essential but not available' (#8)

Online play

Participants were asked an open question of 'why?' subsequent to the cognitive statement 'use of technology for online play must be integrated into the curriculum'. Participant responses, again, varied in length and theme.

Table 3 shows the two themes identified, 'positive responses' and 'negative responses'. These themes are then split into sub-themes, as highlighted in Table 3. Table 3 shows that the frequency of participants responding negatively ($n = 18$) to the statement is slightly greater than those positively responding ($n = 16$). This coincides with the responses to the cognitive statement, as 43.3% ($n = 13$) of participants agreed, therefore were more likely to provide a positive response; whereas 40% ($n = 12$) of participants disagreed, therefore were more likely to provide a negative response. 16.7% ($n = 5$) of participants neither agreed nor disagreed with the statement, therefore they were more likely to give a mixed positive and negative response. For instance, a number of participants referenced to multiple sub-themes within their responses, for example, participant #13 stated: 'children enjoy online play, however I think they are too young, it does teach them skills for their future though'.

Discussion

What are teachers' attitudes towards outdoor play?

It was revealed that teachers held a positive affective response regarding outdoor play, with 100% ($n = 30$) participants agreeing that children in their class enjoy outdoor play. Likewise, 100% ($n = 30$) participants also agreed that outdoor play should be an integral part of the curriculum. Therefore, teachers showed a favourable cognitive response to outdoor play. Despite this, the majority of participants, 76.7% ($n = 23$), showed an unfavourable behavioural response regarding outdoor play, inferring that children within their class do not take part in outdoor play every day. However, 23.3% ($n = 7$) showed a favourable behavioural response to outdoor play, inferring that children within their class take part in outdoor play every day. This shows that the incidence of outdoor

Table 3. Online play thematic analysis.

Theme	Freq.	Sub-themes	Freq.	Examples in data
Positive responses	16 of 30 (53%)	Technology skills needed for the future	10 of 30 (33%)	'Technology is an essential part of life … it is crucial the next generation learns how to use it through play' (*P*#5)
		Learning/development benefits	6 of 30 (20%)	'The apps children use reinforce learning and teach them new things' (*P*#8)
		Children's enjoyment	7 of 30 (23%)	'Children always enjoy online play' (*P*#28)
Negative responses	18 of 30 (60%)	'too young' for online play	13 of 30 (43%)	'Children of this age are far too young to be given time for online play' (*P*#19)
		Other types of play more beneficial	7 of 30 (23%)	'More online play is not needed as learning is far more beneficial through other activities' (*P*#12)

play varies. This addresses the need for investigation into outdoor play frequency (Parent et al., 2021; Renick 2009). However, this requires further investigation, as the true practice may not resemble this.

23.3% ($n = 7$), so less than a quarter, of teachers presented a degree of positive correlation between the three components of attitude. 23.3% of teachers felt positive about the affective value, aware of the cognitive benefits and were behaviourally keen to integrate outdoor play within their pedagogy.

Despite this, the remaining 76.7% ($n = 23$) held a positive affective and cognitive response; however, held an unfavourable behavioural response. Therefore, there seems to be no positive correlation between the three attitude components. The thematic analysis shown in Table 2 adds to this variation in attitude. Table 2 shows that teachers' responses could be split into two themes, 'benefits of outdoor play' and 'limited access to outdoor play'. The 'limited access to outdoor play' theme may suggest that teachers are challenged to provide outdoor play opportunities by matters beyond their control. Nevertheless, 73% ($n = 22$) referred to the benefits of outdoor play within their response, suggesting that they are aware of the outdoor environment's potential for learning and development.

What are teachers' attitudes towards online play?

Data revealed that 93.3% ($n = 28$) of teachers demonstrated a positive affective value of online play, agreeing that children enjoy online play. However, the remaining 6.7% ($n = 2$) stated that they neither agreed nor disagreed with the affective statement, therefore it is unclear what kind of affective response these teachers held. 43.3% ($n = 13$) held a favourable cognitive response to online play, therefore believed that there was a cognitive benefit of online play, and that online play should be integrated into the curriculum. However, 40% ($n = 12$) teachers held an unfavourable cognitive response, suggesting that these teachers did not believe that online play benefited children cognitively. 16.7% ($n = 5$) opted for the 'neither agree nor disagree' response to the cognitive statement, therefore it is unclear whether these teachers held a favourable or unfavourable cognitive response towards online play.

Teachers' behavioural responses to online play also varied. 90% ($n = 27$) held an unfavourable behavioural response, suggesting that the children in their class are not actively engaged in online play, therefore, they avoid integration within their pedagogy. Only 3.3% ($n = 1$) stated that they agreed with the statement, and therefore held a favourable behavioural response, suggesting that the children in their class take part in online play every day. 6.7% ($n = 2$) were, again, unclear about their behavioural response, selecting 'neither agree nor disagree', therefore suggesting that teachers have mixed views regarding the statement.

It is therefore unclear as to whether there is any positive correlation between the three components of attitude for any of the sample, regarding online play. This suggests that teachers' attitudes regarding online play are varied. The thematic analysis regarding online play shown in Table 3, with a variety of positive and negative responses, complicates this further. The variation in attitude is shown through the thematic analysis, as a number of participants referenced to both positive and negative sub-themes within their response. This can be linked to Table 1 that shows varied responses to the frequency of technology use within classrooms. Therefore, this study attempted to investigate the frequency of online play and technology use within the classroom, as Blackwell, Lauricella and Wartella (2014) and Palaiologou (2016) addressed the need for. However, this does not seem as straight-forward as first considered and requires further investigation. If teachers' attitudes do predict and determine the types of play that are afforded to children as literature (e.g. Dietze and Kashin 2019; Ertmer et al. 2012; Tondeur et al. 2016) suggests, the varied attitudes shown within this study may be the reason for the variation in the frequency of use of technology and opportunity for online play within education. Again, this requires further investigation.

How do contemporary teachers' views compare with that of literature?

Outdoor play

Literature (e.g. Brooker et al. 2010; Oikonomou 2012) suggests that teachers acknowledge that children enjoy playing outdoors, and therefore hold pleasurable affective responses towards outdoor play. However, literature (e.g. McClintic and Petty 2015; Oikonomou 2012) also suggests that teachers may hold unpleasurable affective responses towards outdoor play. In this study, however, it was found that all teachers held pleasurable affective responses towards outdoor play. The findings of this study match those of Brooker et al. (2010) and Oikonomou (2012) that concluded that teachers agreed children enjoyed the outdoor play.

In regard to cognitive responses, according to literature (Blanchet-Cohen and Elliot 2011; Dyment and Coleman 2012; Erdem 2018; Ernst and Tornabene 2012; McClintic and Petty 2015; Tuuling, Oun and Ugaste 2019), both favourable and unfavourable teacher responses are evidenced. In this study, however, all of the samples held favourable cognitive responses to outdoor play, agreeing that outdoor play should be an integral part of the curriculum. This, paired with the thematic analysis responses shown in Table 2 with teachers (73%) referring to the benefits of outdoor learning, including learning and development benefits, suggests that teachers are aware of outdoor learning benefits. This matches the findings of literature (e.g. Erdem 2018; Ernst and Tornabene 2012; Tuuling, Oun and Ugaste 2019) that found that teachers acknowledge outdoor play benefits for children. Furthermore, this does not match the findings of other studies that state that teachers had limited perceptions of outdoor play potential (e.g. Blanchet-Cohen and Elliot 2011; Dyment and Coleman 2012; McClintic and Petty 2015).

According to Oikonomou (2012), 75% of teachers hold unfavourable behavioural responses towards outdoor play. This matches the findings of this study, as 76.6% held an unfavourable behavioural response. Only 23.3% held a favourable behavioural response, stating that their class takes part in outdoor play every day. This closely links to Oikonomou's (2012, 40) findings that 'only 25% of teachers offer the opportunity for outdoor activities'.

Online play

Aubrey and Dahl (2014) and Behnamnia et al. (2020) suggest that teachers recognise that children enjoy online play. The findings of this study, therefore, match the literature, as 93.3% of teachers held a pleasurable affective response to online play, agreeing that children within their class enjoy online play. This also links into Table 3, which shows that 23% of the sample also referenced children's enjoyment as a reason for the use of technology for online play to be integrated into the curriculum.

An and Cao (2016) and Grove, Bourgonjon and Looy (2012) state that online play is rarely considered a valued asset. However, Formby (2014) found that EYFS teachers believed technology was central to children's lives. Table 3 shows that 33% of teachers also believed that technology skills are needed for the future. This study concurs with the literature regarding online play, as 43.3% held a favourable cognitive response, whilst 40% held an unfavourable cognitive response. 16.7% may have held both or either, an unfavourable or favourable response, however, they did not give any reasoning. Table 3 also links to literature that argues that young children are not ready for online play (e.g. Arnott 2013; Hatzigianni and Kalaitzidis 2018). 43% of teachers proposed that the children they teach were 'too young' for online play.

This study found that the majority of teachers, 90%, held an unfavourable behavioural response. This matches findings of Hatzigianni and Kalaitzidis (2018) that infer teachers do not provide online play opportunities, and Fraillon et al. (2019) findings that less than 50% of teachers use technology frequently. Only 3.3% of teachers held a favourable behavioural response to online play, agreeing with the statement 'the children in my class take part in online play every day'. This questions literature (e.g. Behnamnia et al. 2020; Lam and Tong 2012; Lucas et al. 2021) claims that educators are progressively using technology and actively promoting online play. The infrequency of technology use and variance in technology use is also shown in Table 1.

Conclusion

The primary aim of this research was to investigate the attitudes held by EY and KS1 teachers regarding outdoor and online play to answer RQs. In terms of answering RQs, converged qualitative and quantitative data shows that the majority of teachers within the sample held mixed attitudes towards outdoor and online play. Utilisation of the tripartite model of attitudes (Rosenberg and Hovland 1960) suggests that, whilst the majority of teachers saw the affective value of outdoor play, and felt there was a cognitive benefit, the majority felt less inclined to afford children outdoor play opportunities and include outdoor play within their pedagogy. This suggests that, despite teachers holding a predominantly positive attitude towards outdoor play, children are still not afforded outdoor play opportunities, despite the EYFS statutory requirement (DfE 2021). So why is this the case?

In terms of online play, the majority of teachers held a pleasurable affective response. However, cognitive responses were varied, and the majority held an unfavourable behavioural response, comparable to outdoor play. This suggests that whilst teachers have a positive affective, emotional response to online play, teachers have unfavourable cognitive and behavioural responses. Therefore, children are not afforded online play opportunities, despite the NC requirements (DfE 2014), and the EYFS stating that children's understanding of technology should be fostered (DfE 2021). Despite this, as previously stated, 'online play' itself is not included within the primary NC or EYFS.

Study findings compare with literature predominantly, with teachers holding similar attitudes to those identified within outdoor and online play literature. However, this may be due to participants providing the socially desired answer, as opposed to their true answer, as suggested by Cohen, Manion and Morrison (2018), affecting the study reliability. Due to the sample size and the sampling method, findings cannot be generalised to a wider population, however, can be generalised to this sample (Bryman 2012; Cohen, Manion and Morrison 2018). Generalisability to the population is negligible as, due to convenience sampling, the sample obtained is likely to have been biased and unrepresentative of the population (Etikan et al. 2016). Despite this, as stated, the survey had a high response rate. It is crucial to indicate that due to the study's exploratory nature, there was no specific requirement for sample size.

As Bryman (2012) states, there are many ways in which research can be knocked off course. Due to the COVID-19 pandemic, this study was severely affected. Planned observations could not take place, and interviews with teachers could not occur. COVID-19 may have also affected teachers' practice during the data collection period. These factors indicate that the data collected may not epitomise true practice and attitudes of EY and KS1 teachers. It is impossible to indicate whether the study findings reflect true practice. To combat this, and the effect of socially desired answers, future studies of teachers' attitudes should utilise observations, however, further ethical considerations may arise herewith. Future studies should also attempt to utilise a probability sampling technique to ensure generalisability and representativeness.

Despite limitations, the findings of this study provide a foundation for future research. Convenience sampling was utilised to gain a preliminary grasp of the current situation regarding outdoor and online play. The grasp can now be extended in numerous ways in further research as it is possible to conclude from study findings that children's opportunities for outdoor and online play are exceptionally varied and restricted. The study findings suggest that further up-to-date research is of the utmost importance in the area of outdoor and online play, and teachers' attitudes towards both types of play. Research involving both types of play is crucial in understanding how online play is accredited for the discouragement of children from outdoor play. This exploratory study adds to the limited UK literature field regarding EY and KS1 teachers' attitudes and their effect upon the outdoor play decline and the online play increase.

This research will increase teachers', policymakers' and future researchers' awareness of the importance of outdoor and online learning. Teachers' understanding of how and if their attitudes may affect childrens' opportunities may also be improved. Policymakers may overview how

outdoor and online learning are portrayed within policy and this research may also contribute to future policy. This research also provides an insight into how teachers' attitudes may affect children's opportunities, and highlights the gaps within the research for future researchers, in regard to outdoor and online play.

To conclude, findings show that the occurrence of outdoor and online play is varied. Findings suggest that, whilst the majority of EY and KS1 teachers held positive affective responses to outdoor and online play, there is significant variation in the overall attitudes held by teachers regarding both play types. Due to literature (e.g. Dietze and Kashin 2019; Ertmer et al. 2012; Tondeur et al. 2016) stating that teachers' attitudes have an impact upon the types of play and learning opportunities afforded to children, further research is required to understand the overall influence of teachers' attitudes upon children's opportunities for outdoor and online play.

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