



## The theoretical and evidence-based components of whole school approaches: An international scoping review

Cavanagh, M., McDowell, C., O'Connor Bones, U., Taggart, L., & Mulhall, P. (2024). The theoretical and evidence-based components of whole school approaches: An international scoping review. *Review of Education*, 12(2), Article e3485. <https://doi.org/10.1002/rev3.3485>

[Link to publication record in Ulster University Research Portal](#)

**Published in:**  
Review of Education

**Publication Status:**  
Published (in print/issue): 01/08/2024

**DOI:**  
[10.1002/rev3.3485](https://doi.org/10.1002/rev3.3485)

**Document Version**  
Publisher's PDF, also known as Version of record

**Document Licence:**  
CC BY

### General rights

The copyright and moral rights to the output are retained by the output author(s), unless otherwise stated by the document licence.

Unless otherwise stated, users are permitted to download a copy of the output for personal study or non-commercial research and are permitted to freely distribute the URL of the output. They are not permitted to alter, reproduce, distribute or make any commercial use of the output without obtaining the permission of the author(s).

If the document is licenced under Creative Commons, the rights of users of the documents can be found at <https://creativecommons.org/share-your-work/licenses/>.

### Take down policy

The Research Portal is Ulster University's institutional repository that provides access to Ulster's research outputs. Every effort has been made to ensure that content in the Research Portal does not infringe any person's rights, or applicable UK laws. If you discover content in the Research Portal that you believe breaches copyright or violates any law, please contact [pure-support@ulster.ac.uk](mailto:pure-support@ulster.ac.uk)

# The theoretical and evidence-based components of whole school approaches: An international scoping review

Matthew Cavanagh<sup>1</sup>  | Claire McDowell<sup>1</sup> |  
Una O. Connor Bones<sup>2</sup> | Laurence Taggart<sup>3</sup> | Peter Mulhall<sup>3</sup>

<sup>1</sup>Ulster University School of Psychology, Coleraine, UK

<sup>2</sup>Ulster University School of Education, Coleraine, UK

<sup>3</sup>Ulster University School of Nursing and Paramedic Science, Coleraine, UK

## Correspondence

Matthew Cavanagh, Ulster University School of Psychology, Coleraine, UK.  
Email: [cavanagh-m3@ulster.ac.uk](mailto:cavanagh-m3@ulster.ac.uk)

## Abstract

The whole school approach (WSA) is often used in schools as a means of transformative change across many areas and involves many stakeholders. Many of the approaches used in WSAs are underpinned by psychological, social and educational theories. Although many of these approaches focus on vulnerable groups such as bullied and excluded children, relatively few of these approaches aim to support children with special educational needs (SEN). This specific vulnerable group includes children with attention deficit hyperactivity disorder (ADHD), dyslexia, autism spectrum disorders, among many others. A rigorous, theory-driven approach to supporting such children in schools is essential in ensuring positive academic and developmental outcomes for such students. Therefore, a scoping review was undertaken to explore the current literature on the use of WSAs, their theoretical and evidence-based components as well as key areas in which they are utilised and how they are evaluated. After searching in seven (EBSCOhost, ERIC, British Education Index, Open Dissertation Search, PsycINFO, Medline Ovid, Child Development and Adolescent Studies) databases and completing a rigorous screening process, 21 papers were included in the review. Recommendations for further research involving the development and implementation of a WSA to support children with special educational needs are made, with emphasis

This is an open access article under the terms of the [Creative Commons Attribution](https://creativecommons.org/licenses/by/4.0/) License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

© 2024 The Author(s). *Review of Education* published by John Wiley & Sons Ltd on behalf of British Educational Research Association.

placed on the importance of a clear theoretical underpinning, interdependent components, clear outcome measures and co-production.

#### KEYWORDS

co-production, scoping review, whole school approach

## Context and implications

### Rationale for this study

This scoping review is the first step in a series of studies working to inform a framework for schools who may want to implement a whole school approach (WSA) to dyslexia provision. The WSA is increasing in popularity, but a theory-driven approach has yet to be used to support dyslexia in a primary school.

### Why the new findings matter

The findings of this scoping review will add to the existing knowledge on the most crucial components required within a WSA, as well as provide new evidence which justifies a theoretical underpinning in such approaches. This review also highlights potential areas of new research, as well as common barriers and facilitators to WSAs.

### Implications for policy makers and schools

This review will be a useful reference point for policy makers and schools who may wish to develop and implement a WSA to support children with dyslexia. The finding that so few WSAs have been underpinned by psychological theory, coupled with the successes of those that were, will encourage a greater focus on theory-driven approaches in future. This paper also highlights the importance of the involvement of parents, school staff, students and school leadership within all stages of the WSA. This finding suggests that future WSAs must include as many school stakeholders as possible throughout the development and implementation stages.

## INTRODUCTION

A whole school approach (WSA) aims to improve outcomes by integrating new habits into everyday life and practices through collaborative efforts that include all staff, teachers, children and their families (Goldberg et al., 2019). The World Health Organisation defines a WSA as involving coordination between three key components (Goldberg et al., 2019), namely: (i) curriculum, teaching and learning, (ii) school ethos and environment and, importantly, (iii) family and community partnerships, extending learning to the home and community contexts. Embedding families within a WSA reinforces the complementary roles of families and educators and extends opportunities for learning across the two contexts in which children spend most of their time (Goldberg et al., 2019). WSAs are internationally utilised, with a

number of notable works being published in Asia in recent years (Sasaki et al., 2023; Wong et al., 2021).

## Characteristics of an effective WSA

The careful development of a WSA can lead to significant improvements in behaviour management and enhancement of the social and learning environment of a school when implemented effectively (Rogers, 2000, p.12). Effective implementation of a WSA should encourage a collaborative effort between the school and the home, the two settings in which school children spend most of their time (Stirling & Emery, 2016). This collaborative relationship across key settings endorses the suitability of the use of a WSA as a framework for implementing evidence-based practices (EBPs), which in turn improve school behaviour, reduce absence, or improve academic outcomes (Goldberg et al., 2019).

Effective WSAs have several interdependent elements (Procter et al., 2021), namely that they:

- Consider the ethos and environment of the school as well as curriculum, teaching and learning. This means that the commitment to developing a WSA needs to be championed both by leadership and management as well as by teaching staff.
- Include the whole school audience. This means paying true attention to and including the voice of pupils; recognising that parents and carers have a wealth of knowledge and need to be part of the work; and involving and taking care of the well-being of the whole staff team, including teaching and non-teaching staff, junior staff and school leaders.
- Recognise the strength of universal, targeted and specialist work to support children and young people's health and well-being.

WSAs have proven effective in both primary and secondary schools, having been implemented across a range of areas such as promoting mental health and well-being (Higgins & Booker, 2022, Wyn et al., 2000), promoting social and emotional development (Goldberg et al., 2019), promoting healthy eating and exercise as a means to decrease obesity (Shaya et al., 2008) reduction and prevention of bullying behaviours (Wong et al., 2011), and fostering inclusion between different cultures and ethnicities (Karim & Hue, 2023).

Services and stakeholders are focused on developing, disseminating and delivering practices that are informed by research to ensure better outcomes for those individuals and groups they serve (Blase & Fixsen, 2013). There has been a proliferation of evidence-based practice (EBP) in areas such as education, mental and physical health (Fixsen et al., 2009). EBP is a problem-based approach where research evidence is used to assist clinical decision making (Hoffmann et al., 2023). A significant barrier to the success of any school-based WSA is the effective translation of research into evidence-based practice in the everyday running of the classroom (Fixsen et al., 2009).

Effective implementation is a particular challenge to WSAs, and it has been reported that attempting to use EBP in large settings such as schools, without a consistent framework have often failed to produce the desired results (Fixsen et al., 2009). Cook and Odom (2013) propose the following equation as a means of highlighting the importance of the effective implementation of EBP:

$$\text{Effective Interventions} \times \text{Effective Implementation} = \text{Improved Outcomes}$$

This equation implies that without effective implementation structures, such as the framework of a WSA, even the most effective EBP will fail to yield the desired outcomes. The difficulties within implementing EBP within schools has been noted within a range of contexts,

from staff failing to meet the needs of autistic students (Roberts & Webster, 2022) to lack of emphasis on physical activity within school-based food and nutrition policies (World Health Organisation, 2021).

Implementation science is the study of the components required to promote the authentic adoption of evidence-based interventions, thereby increasing their effectiveness (Moir, 2018). The field of Implementation Science is crucial to the design and evaluation of interventions and recognises internal and external facilitators and barriers to implementation within a variety of settings including healthcare (Bauer & Kirchner, 2020) and education (Moir, 2018). Without the effective use of implementation science and frameworks, it can take an average of 17 years to bring research informed strategies into clinical practice and, once implemented, many have low treatment fidelity (Franks & Bory, 2015). Within the context of a primary school, 17 years is a significant fraction of the average teaching career in the UK, especially given the increases noted in early teacher retirement (Cumbo & Foster, 2023) so there exists a need for any systemic reforms to occur at a much faster rate than this in order to ensure teachers remain constantly capable of engaging with new initiatives. Also, the most likely time to form healthy habits occurs in primary school (Fisher et al., 2019) so faster research-to-practice is needed within schools to prevent the possibility of ill-equipped students entering post-primary education.

## Barriers and facilitators to the effective implementation of a WSA

Implementation Science plays a key role in understanding the barriers and facilitators to the implementation of EBP within a school setting. The problematic relationship between research in education and educational practice has been labelled the 'research to practice gap' (Hirschkorn & Geelan, 2008). When implementing EBP as part of a WSA, existing research-to-practice gaps must be recognised and addressed (Hirschkorn & Geelan, 2008). In school settings, the research-to-practice gap is so significant that it has been labelled a 'chasm' (Cross & Donovan, 2002), and it has been suggested that this significant gap may have existed for as long as research into education has (Cook & Odom, 2013). In developing an effective WSA to support effective implementation of EBP, understanding and applying the cross-disciplinary field of implementation science (Bauer et al., 2015) is crucial to its success.

Teacher and school leader resistance to implementing new strategies has been documented as a major barrier to the effective implementation of new strategies (Orijji & Amadi, 2016; Varghese et al., 2021) and this resistance is also evident in the implementation of WSAs (Romney et al., 2022). Effective implementation of a WSA requires collaboration beyond the curriculum, with the buy-in of school staff, parents and school committees integral to its success (Stirling & Emery, 2016).

The majority of WSAs developed up to this point tend to focus on the areas of mental health and well-being (Australian Department of Education, 2013; Wong et al., 2021), social and emotional development (Cefai, 2012; Nielsen et al., 2015), bullying awareness and prevention (Cowie et al., 2008; Cross et al., 2021; Dake et al., 2004; Daugherty, 2011; Heinrichs, 2003) and inclusion (Agius Ferrante, 2012; Deppeler & Harvey, 2004; Down, 2002; Poon-McBrayer & Wong, 2013), but relatively few WSAs focus on supporting equally vulnerable children with special educational needs (SEN).

The quality of the method employed is a crucial factor for consideration in effective implementation in relation to SEN. Recent research has shown that techniques which lack an evidence base of effectiveness in supporting children with SEN (such as a focus on an individual's 'learning style', whether that be auditory, visual or kinaesthetic) are employed in

interventions with the same or greater frequency than effective supports (such as mnemonics) (Burns & Ysseldyke, 2009, as cited in Cook & Odom, 2013).

When implementing a WSA, it is crucial to be aware of the possible barriers to effective implementation (Cook & Odom, 2013). Notable barriers to the effective implementation of a WSA include a lack of training for staff (Khan et al., 2012), failure to achieve staff buy-in (Cross et al., 2021; Romney et al., 2022), and feelings of stigmatisation and stereotyping among the target students (Brömdal et al., 2021).

## Aims and objectives

The aim of this scoping review was therefore to identify and evaluate the existing national and international literature regarding the development and implementation of WSAs to inform the development of future WSAs.

This aim was achieved through the completion of the following objectives:

1. Identify key theories underpinning the use of WSAs.
2. Investigate the systems components that characterise an effective WSA.
3. Establish if WSAs are measured.
4. Identify the facilitators and barriers to the successful implementation and maintenance of a WSA.

## METHODS

A scoping review was selected as the most appropriate method to explore the literature on WSAs in primary school settings. This method of review was chosen given its effectiveness at identifying knowledge gaps in existing literature, while also identifying the volume, depth and breadth of available literature (Grant & Booth, 2009, p.95; Beck et al., 2017; Pham et al., 2014).

The Arksey and O'Malley (2005) framework for scoping reviews was used to guide this review and involves a six-step methodological process:

1. Identifying the research question
2. Searching for relevant studies
3. Selecting studies from those identified
4. Charting the data
5. Collating, summarising and reporting the results
6. Optionally, consulting with stakeholders to inform or validate study findings.

The reporting of this review followed the PRISMA-ScR guidelines (Tricco et al., 2018; see [Appendix 1](#)) as closely as possible. These guidelines have been developed as a means to assist researchers carrying out literature reviews such as this. The entirety of the screening process can be viewed in [Figure 1](#).

## Framework stage 1: Identifying the research question

The following overarching question guided this review:

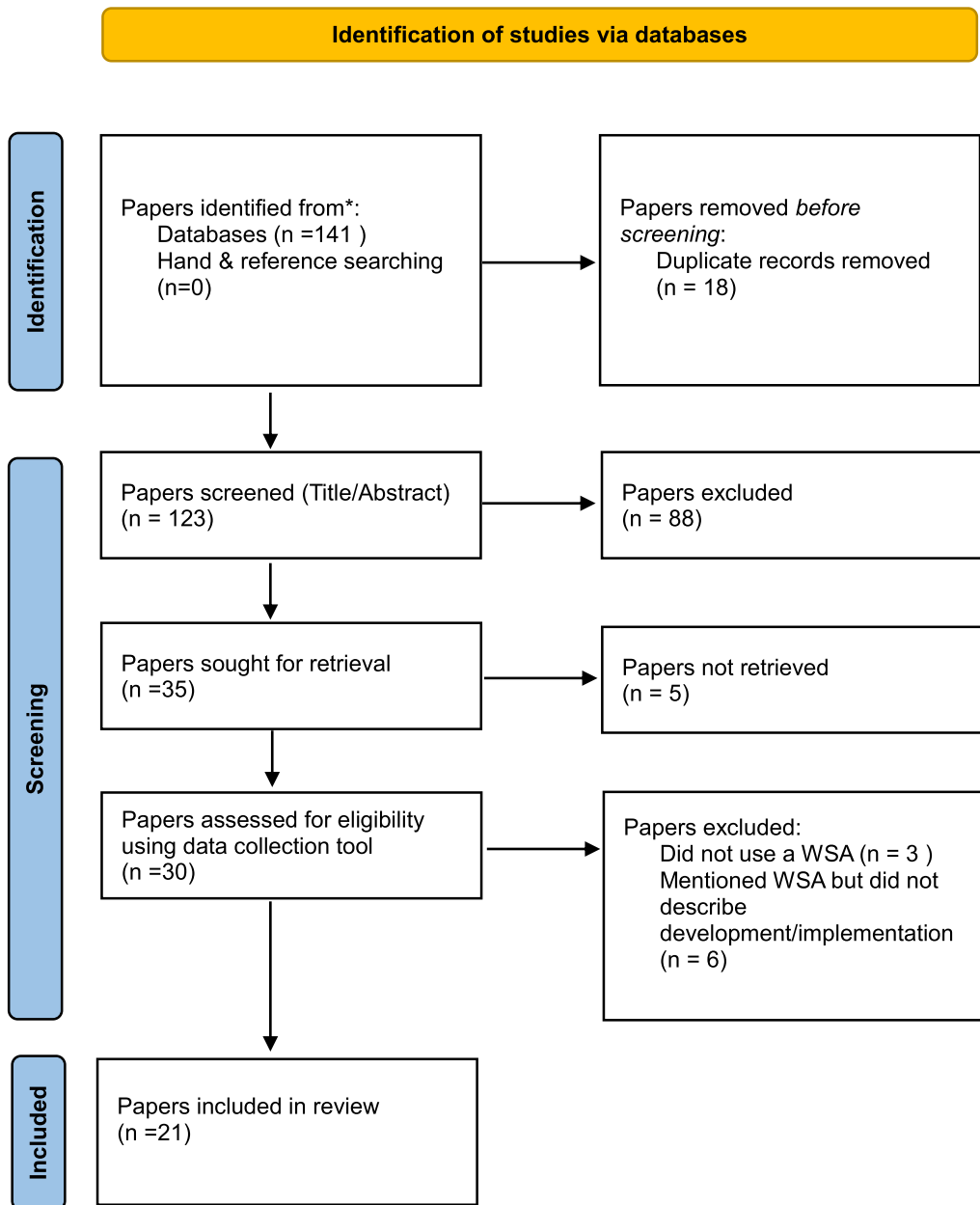


FIGURE 1 PRISMA flow diagram.

What is known from the existing international literature regarding the use of whole school approaches to support vulnerable groups, that can inform the development and implementation of future whole school approaches to support children with special educational needs?

## Framework stage 2: Identifying relevant studies

An initial search of existing literature was carried out to identify any similar studies to this scoping review. Searches of online psychological and educational literature databases

(namely EBSCOhost, ERIC, British Education Index, Open Dissertation Search, PsycINFO, Medline Ovid, Child Development and Adolescent Studies) were conducted to identify any existing reviews of WSAs that supported primary school children with special educational needs, using the search terms ((Scoping Review OR Systematic Review OR Scoping Studies OR Literature Review) AND (Whole School Approach OR Whole-School Approach OR WSA) AND (Primary School OR Elementary School OR Primary Education OR Elementary Education) AND (Special Educational Needs OR SEN)) with wildcard truncation (\*) added where necessary with the search yielding no results.

The Arksey and O'Malley (2005) framework highlights the need to change the eligibility criteria for inclusion as familiarity with the literature increases. In the case of this review, it became clear from early searching that the inclusion of the terms 'primary school' and 'special educational needs' as specific title/abstract search terms would not yield enough results for review. Due to the lack of papers focused on SEN groups available, the search was broadened to include other vulnerable groups in schools, which are frequently supported in WSAs, namely those that support inclusion, mental health and anti-bullying.

A comprehensive search was developed by modifying the original search terms and keywords to include synonyms of those terms (Peters et al., 2020). Once alternative terms used to describe each vulnerable group were identified, the final search ran as follows:

((Whole School Approach OR Whole-School Approach OR WSA) AND (Primary School OR Elementary School OR Primary Education OR Elementary Education) AND (Special Educational Needs OR SEN OR Learning Disabilities OR Exceptionalities OR Bullying OR Inclusion OR Inclusive Education OR Mental Health OR Mental Illness OR Mental Wellbeing)) with wildcard truncations (\*) used as necessary

These searches were carried out across all listed databases at the title/abstract level to ensure initial results would have enough mention of WSAs prior to being screened for inclusion. An example search string is included in [Appendix 2](#).

The Arksey and O'Malley framework (2005) emphasises the adoption of a search strategy that is as comprehensive as possible so that relevant studies and reviews are identified to answer the central research question. In order to achieve the required comprehensiveness, sources of literature for this review included electronic journals, reference lists and hand-searching.

### Framework stage 3: Study selection

Searching of the seven previously mentioned electronic databases yielded 141 results. After the removal of duplicates, a total of 123 papers remained for screening (see [Figure 1](#)). A priori inclusion and exclusion criteria were devised and implemented by the researchers (see [Table 1](#)), with a joint review process of papers being conducted which allowed for transparency in the papers that were included in the review.

The lead investigator screened 62 of the 123 papers selected for screening with the four co-authors screening the remaining 61 between them. These papers were randomly assigned to each of the co-authors using Microsoft Excel. Each of the co-authors screened their assigned papers at the title and abstract level and given the choice to 'include' or 'exclude' each of their assigned papers.



TABLE 1 Inclusion/exclusion criteria.

Inclusion	Exclusion
Peer-reviewed articles or grey literature in the English language	Studies published before 2002
Published between 2002 and 2023	Studies not published in or translated into English
Described the development and implementation of a WSA in terms of theory and/or components and/or measurement	Studies are limited to individual or classroom level interventions (i.e. does not involve school board members, school principal or parents)
Based in primary school or post-primary school settings	No assessment of the impact of the WSA
Included some form of evaluation of the impact of the approach	No description of the development or implementation of this approach in terms of underpinning theory, components or evaluation
Focus on the topics of bullying, social and emotional development, mental health or inclusion	

Inter-rater agreement was that each of the 123 papers was reviewed independently by the lead author and one of the co-authors, who indicated whether or not the paper met the criteria for inclusion based on the inclusion/exclusion criteria listed in [Table 1](#).

Agreement was reached if both co-authors indicated a paper should be included or excluded. If there was disagreement, a third author was invited to review the paper, with their recommendation deciding the paper's inclusion (Park & Kim, 2015). A third co-author was required for two of the papers, with neither of these being included for review.

The date limit was set as 2002, which marks the year of publication of the Task Group Report on the Education of Children and Young People with Specific Learning Difficulties from the Department of Education of Northern Ireland (Department of Education, 2002) which recommended the WSA as a potentially useful method of supporting SEN children. Only studies that were published in the English language were considered for inclusion in this review due to the significant costs and time associated with the translation of foreign language material.

Given the lack of available literature on WSAs designed to support SEN children in primary schools, any research which details the development and implementation of a WSA throughout both primary and post-primary schools were considered. Post-primary schools in this context refers to any education received after primary school and is often used interchangeably with 'second-level education'. Included studies focus on the topics of bullying, social and emotional development, mental health and inclusion given the vulnerability of the student population in these studies, which is similar to the population expected in a WSA to support SEN children. Studies that mention use of a WSA without detailing the theoretical underpinnings, components, evaluation nor barriers and facilitators of the WSA were not considered.

In cases where the full paper was required, the lead author either retrieved and reviewed the full paper, or sent the full paper through to the co-author, whereupon the Microsoft Excel spreadsheet would be updated to 'include' or 'exclude'. In cases where some ambiguity remained, a co-author could request dual screening alongside the lead author or another co-author to reach a consensus on a paper's status. At this stage, 88 of the 123 papers were excluded from the review, leaving 35 papers to be assessed for inclusion.

Of the remaining 35 papers, a total of 30 could be retrieved, with 5 papers being doctoral theses that could not be obtained from their authors or institutions. Further screening of these 30 revealed that 9 papers did not meet the inclusion criteria for the following

reasons: papers which did not employ a WSA ( $n=3$ ) and papers which mentioned the use of WSAs without describing the development or implementation of such an approach ( $n=6$ ). Therefore, a final set of 21 papers that discussed the development and implementation of WSAs in primary and secondary school settings were included for review.

### **Framework stage 4: Charting the data**

A data extraction tool (see [Appendix 3](#)) was developed in order to examine papers against the research questions, focusing on the key findings. Data extracted included the study characteristics (e.g., the vulnerable group the WSA was designed for), underpinning theory, components, measurement, barriers and facilitators.

### **Framework stage 5: Collating, summarising and reporting results**

A thematic synthesis of the collected data was then conducted, with common patterns of meaning within the data noted and collated in order to identify the most commonly reoccurring themes within the 21 included papers (Thomas & Harden, 2008). This thematic analysis was conducted by reviewing the completed data extraction sheets from the included papers and noting their respective underpinning theories, components, evaluation as well as barriers and facilitators to implementation.

### **Limitations of the review process**

This review process is still subject to limitations, however, such as the choice of databases used for searching and whether they were comprehensive enough, search terms used (i.e., which vulnerable groups to include), as well as its reliance on English language items, preventing the inclusion of any relevant foreign language WSAs. WSAs are increasing in popularity on an international scale and, as such, the topic may merit the development of a robust and comprehensive systematic review of the literature to follow on from scoping reviews such as this. Where ambiguity existed in including a paper for review, a consensus was reached by the lead author and the co-author to which the paper was initially assigned.

## **RESULTS**

Of the 21 papers included (see [Appendix 4](#)), 7 of these included WSAs that were based in a school setting: five in post-primary schools, one in a primary school and one beginning at kindergarten level and continued through to primary school (Cheung et al., 2021). Of the remaining WSAs, seven offered guidance on the implementation of their respective WSAs, four looked into the experiences of school principals and teachers, two were centred around the role and experiences of school counsellors and one investigated the experiences of the main stakeholders (teachers, principals) of a post-primary school in implementing a WSA (Khan et al., 2012).

In terms of the focus of the 21 included papers, a total of 9 focused on inclusion, 6 focused on bullying, 4 focused on mental health and 2 focused on social and emotional development. Within the nine papers which focused on inclusion, one of these was a support for autistic students, one sought to aid teachers in a disadvantaged and struggling schools, and one was a literacy support WSA.

## Theories underpinning included WSAs

Of the 21 papers included in this review, only seven explicitly state that they are grounded in underpinning theory. Theories underpinning WSAs reviewed were Bronfenbrenner's Bioecological Model (Cross et al., 2021), Maslow's Theory of Motivation (Daugherty, 2011), the Social Model of Disability (Agius Ferrante, 2012) and Roger's Theory of Diffusion and Self-Determination Theory (Wong et al., 2021). Two papers mentioned the use of pedagogic (Teacher Effectiveness Enhancement Programme) and didactic (Investigation, Vision, Action for Change) models as a guide for intervention development (Institute for Effective Education, 2016; Nielsen et al., 2015) and one other paper was based upon Fixsen et al.'s (2013) guidelines for the implementation of evidence-based practices within schools (Roberts & Webster, 2022). One paper opted to merge the transtheoretical model together with the health belief model and developed its survey instrument using components from these two models (Dake et al., 2004).

## Rationale for the use of underpinning theories in whole school approaches

Of the seven papers that employed an underpinning theory, each of them provided their own justification for using their theory of choice. Cross et al. (2021) used Bronfenbrenner's Socioecological Framework (Bronfenbrenner & Ceci, 1994) as well as Family Systems Theory (Cross & Barnes, 2014) in order to fully understand the emergence of bullying behaviours in children by investigating the influence that their complex interactions with those around them as well as the environments they live in have. Daugherty (2011) employed Maslow's Theory of Motivation (1943) in an effort to highlight the importance of perceived safety among schoolchildren, with the hierarchical nature of the theory emphasising that without the required feelings of safety which appear as the most basic needs within Maslow's Theory, schoolchildren will be unable to effectively learn until they have successfully satisfied that level.

Dake et al. (2004) used the Stages of Change Component of the Transtheoretical Model in order to develop a survey instrument for the WSA. This specific component was used in order to assess the thoughts of principals on the school-wide activities recommended by the Norwegian Bullying Prevention Programme. This survey instrument also used the Barriers component of the Health Belief Model in order to identify the perceived barriers that could be encountered by selected bullying prevention activities. Agius Ferrante (2012) used the Social Model of Disability as a means of understanding the social barriers faced by those with disabilities in terms of exclusion from activities. This model was chosen as the aim of this study was to document one Maltese school's experience of including disabled learners. This model proposes that disability is a social, rather than a biological issue as exclusion from activities is often a result of the social assumption that a disabled person 'can't do' something rather than their physical disability.

Wong et al. (2021) used both Roger's Diffusion of Innovation Theory (Rogers et al., 2014) and the Theory of Self-Determination (Ryan & Deci, 2000). The rationale given for employing both of these within the same WSA was to inform the interviews conducted with student leaders and adult advisors. Self-Determination Theory (Ryan & Deci, 2000) was used to highlight changes at the personal level within the WSA whereas Roger's Diffusion of Innovation Theory (2003) suggests that in complex systems, new interventions tend to be accepted and implemented by existing groups in a normal distribution. This theory proved useful in this study as it enabled the authors to document change occurring at a systems level into three distinct stages, namely initiation, transformation and institutionalisation.

Roberts and Webster (2022) developed a WSA to allow schools to support and include children with autism. This approach used guidelines for the implementation of evidence-based practice within schools (Fixsen et al., 2013). The work of Fixsen and colleagues was used to map the stages of change throughout the implementation of this WSA. Change involves schools moving through a series of stages to implement effective practice. In the *exploration* stage the leaders and staff create a shared vision of outcomes and steps needed to achieve these outcomes. In the *installation* stage, school staff plan for and gather the required resources and develop the staff's initial knowledge and skills to implement the strategy. The staff then move to the *initial implementation* stage and implement the identified strategies. In this stage, feedback is critical for revision of strategies and further development of support and resources required for the successful implementation of the practice. After these have been put in place, the school leaders and staff can enter the *full implementation* stage.

Aside from the discussed theories, two of the included studies used a pedagogical framework (Nielsen et al., 2015) and didactic model (Institute for Effective Education, 2016). Nielsen and colleagues (2015) noted the experiences of a Danish school that applied a mental health intervention by implementing the *Up* WSA. *Up* uses the Investigation, Vision and Action for Change (IVAC) didactic model to inform its educational activities for children. This model seeks to promote schoolchildren's involvement and feelings of ownership by making them investigate different issues in relation to mental health (what, why, how), create visions (alternatives, dreams) and act to change (choose actions and achieve experiences in regard to implementing the visions) (Jensen, 1997). Educational materials that were developed through the use of the IVAC model were tailored to the individual age groups of the children.

The Institute for Effective Education (2016) employed the Teacher Effectiveness Enhancement Programme (TEEP). The TEEP is a pedagogical framework designed to enable teachers to become more effective and by extension create more effective learners. This robust framework includes a six-phase curriculum, five underpinning elements and effective teacher and learner behaviours. The framework was chosen as it encourages teachers to become more reflective upon their own teaching as well as enabling them to foster a more effective learning environment within their classrooms.

It is clear from the review of all papers, especially those that employ an underpinning theory within their approach, that careful consideration must be taken in choosing which theories to implement within a study. Of the papers including underpinning theories, many of these include a number of similar components (such as student input, teacher training, leadership and parental involvement). These frequently reoccurring theoretical components should be investigated in detail in order to identify suitability for use within a robust WSA.

Another theory of particular interest was the Theory of Self-Determination (Ryan & Deci, 2000), used by Wong et al. (2021). This theory posits that there are three basic needs that need to be fulfilled to achieve motivation, namely autonomy, competence and relatedness. The theory describes the feelings of self-worth and ownership required from an individual to complete an action. The relatedness component of this theory was of particular interest, given that it outlines the need for an individual to feel secure in their actions by an external party such as a coach, teacher or a parent. When this feeling of perceived security is present, intrinsic motivation to complete an action increases. This facet of the Theory of Self-Determination may be particularly useful in a WSA to support SEN children through supportive and affirmative input from those within the child's learning sphere.

Underpinning theory guiding an WSA proved to be absent in the majority of included papers. Fourteen of the papers included contain no underpinning theory, representing two-thirds of the included papers, with one of these papers making a strong recommendation of theoretical underpinning in future WSAs (Cunningham & Whitten, 2007), yet this does not seem to have been employed within most WSA development since then.

## Components of WSAs

In the development of a WSA, it is crucial to clearly describe and define the components which make up the intervention. An effective WSA should be comprised of a number of inter-dependent and inter-linked elements or components (Procter et al., 2021). The core components of an intervention are defined as being the essential principles, associated elements and intervention activities that comprise an intervention (Blase & Fixsen, 2013). Based on the literature, the most frequent components were noted and are summarised below.

### Parental/carer involvement

As can be seen from the table in [Appendix 4](#), parental or carer involvement is a key component in nine of the papers mentioned. Analysis of these papers has shown that in the majority of WSAs that have shown positive change within a school setting, parents had some role or responsibility within the development or implementation processes (Agius Ferrante, 2012; Cefai et al., 2021; Cheung et al., 2021; Daugherty, 2011; Heinrichs, 2003; Nielsen et al., 2015). Parental involvement is cited as a core component generally by many of the included papers, but it is a visible facet of those which are theoretically underpinned (Bronfenbrenner & Ceci, 1994, as cited in Cross et al., 2021; Cross & Barnes, 2014, as cited in Cross et al., 2021; Jensen, 1997, as cited in Nielsen et al., 2015; Ryan & Deci, 2000, as cited in Wong et al., 2021).

### Student input

Student input in the design and implementation of a WSA is a core component in four of the included papers, with one of the papers being student-led (Wong et al., 2021). This paper examined a successful case of a student-led WSA which aimed to bring significant change and leave a long-lasting impact on the way in which mental health was promoted (Wong et al., 2021). The student-led component involved four student leaders working closely within a project team which included four adult advisors (namely their school's vice-principal, a social worker and two teachers). This WSA was guided by a university partnership, which maintained the student leadership component throughout implementation and ensured that student leaders had an equal voice in the development of the approach. The WSA employed an awareness campaign, formation of an Instagram account in which students could share their mental health issues anonymously, as well as various mental health promotion activities which eventually involved the rest of the local community and saw mental health promotion occupying a significant space within the school timetable.

The importance of student involvement is highlighted thoroughly throughout this paper, with the successful implementation of this WSA proving to be a strong indicator of the importance of student involvement. Many other included papers contain student involvement or student ownership as a component (Australian Department of Education, 2013; Cowie et al., 2008; Heinrichs, 2003; Wong et al., 2021). In terms of responsibility for students within a WSA, Self-Determination Theory (Ryan & Deci, 2000) posits that the more a student feels free and capable of making decisions, as well as secure and supported, the more likely it is that they will engage with a programme or intervention.

Student involvement is also heavily explored in the IVAC model used in the Nielsen et al. (2015) mental health WSA. This didactic model aims to engage children in health and environmental problems that are relevant to them. The model encourages children to investigate why a problem exists and what it means to them, to visualise how this problem

could be solved and how their life would be without this problem, and to act to change these circumstances.

## Staff training

Staff/teacher training as either the focus or the implementation of the WSA features in six of the included papers (Brömdal et al., 2021; Busch et al., 2013; Cheung et al., 2021; Khan et al., 2012; Poon-McBrayer & Wong, 2013; Wong et al., 2021). Teacher training within these papers consisted of either pre- or in-service training, with one of these papers using a mixture of both (Poon-McBrayer & Wong, 2013). Failure to adequately train teachers is also cited as a barrier to effective implementation (Khan et al., 2012; Poon-McBrayer & Wong, 2013).

Teacher and school leader resistance to change and new strategies has been cited as a barrier to the implementation of WSAs and this resistance is evident in the implementation of the WSAs in four included papers (Deppeler & Harvey, 2004; Down, 2002; Khan et al., 2012; Poon-McBrayer & Wong, 2013). Three WSAs have overcome either staff resistance to new strategies or a lack of staff knowledge on the subject using teacher training as a major component (Block et al., 2014; Institute for Effective Education, 2016; Khan et al., 2012). The training given to teachers in these papers is both informative and guides implementation.

## Leadership

Leadership has been cited as a crucial component of an effective WSA (Brooks et al., 2004). Leadership within schools is defined as a process of influence which leads to the achievement of desired purposes (Bush & Glover, 2003). Leadership is often viewed as second to only classroom teaching in importance to student outcomes (Bush & Glover, 2014). Leadership is a common component of the WSAs included for review, being explicitly mentioned in five of the papers (Australian Department of Education, 2013; Block et al., 2014; Cheung et al., 2021; Roberts & Webster, 2022; Wong et al., 2021). Components that are similar to leadership without being explicitly named as such appear in 10 other papers, meaning the majority of the papers included in this review have an individual or group of stakeholders which take control of the WSA and guide its implementation. Stakeholders who showed leadership within these WSAs include guidance counsellors (Cross et al., 2021; Cunningham & Whitten, 2007), school leaders (Dake et al., 2004; Poon-McBrayer & Wong, 2013), co-ordinating groups appointed within the school (Busch et al., 2013; Institute for Effective Education, 2016; Heinrichs, 2003;), parents (Agius Ferrante, 2012) and peer support groups (Cowie et al., 2008).

As has been mentioned, student input and teacher training are crucial components of a WSA but without the leadership component it is clear that effective implementation is much less likely, with large teams lacking leadership cited as a barrier to effective implementation in Khan and colleagues (2012). Leadership within the included WSAs has been both internal (Australian Department of Education, 2013; Cross et al., 2021; Cunningham & Whitten, 2007; Roberts & Webster, 2022; Wong et al., 2021) with training and maintenance overseen by appointed facilitators within schools (which included teachers and school counsellors), as well as external (Busch et al., 2013; Nielsen et al., 2015), in which the school liaises with experts in the field of the WSA in order to achieve effective implementation.

Student leadership is also noted across some included studies (Cowie et al., 2008; Heinrichs, 2003; Wong et al., 2021). This specific type of leadership features most heavily in Wong et al. (2021). In order for effective implementation to occur, it is clear that a defined leadership structure must exist within the WSA, whether that is internal, external or a hybrid of both.

## Evaluation of WSAs

The evaluation of a WSA is an essential facet in determining whether or not effective implementation has occurred. In order to assess the effectiveness of a WSA, it is essential that some form of outcome evaluation be employed. The Teacher Effectiveness Enhancement Programme (TEEP) (Institute for Effective Education, 2016) is a WSA that aims to improve the GCSE scores of students within intervention schools by improving the way that teachers develop and deliver lessons to students. The TEEP is the subject of a robust process evaluation in which random intervention schools were visited prior to the implementation of the TEEP during which researchers sat in on training sessions, and during implementation where researchers followed the progress of the TEEP throughout the school. Surveys were completed by stakeholders (teachers, principals and students) to assess their experiences and perceptions of the TEEP. This WSA failed to produce significant improvements in GCSE scores within intervention schools but observations by researchers and surveys completed by stakeholders indicated that the TEEP was well-received and maintained. This WSA does, however, acknowledge its own limitations in that maintenance was measured by way of self-report surveys conducted with teachers. This finding appears to suggest that the TEEP in its current form may be too complex to implement within the relatively short GCSE course (Institute for Effective Education, 2016).

The change in target behaviour is often the measure of the success or failure of the implementation of a WSA, yet the method in which that outcome is decided varies greatly among the papers mentioned. WSAs can rely heavily upon self-reported data (Nielsen et al., 2015) whereas others use the decrease in their target behaviour to show the effect of the WSA (Down, 2002). Both of these measurements have been recognised as limited within their respective articles, however, with reliance on self-reported data noted as a barrier to effective implementation in Nielsen et al. (2015), and Down (2002) noting a failure to account for confounding factors such as outside influences on students, teachers' willingness to implement the WSA and teachers' preference to exclude a child from the classroom rather than to persist with the WSA. Nielsen and colleagues (2015) also cite the lack of a standardised evaluation for their target behaviour (social and emotional competence) as a barrier to effective implementation in itself.

## Barriers and facilitators to the implementation of a WSA

One of the main objectives of this scoping review was to identify the barriers and facilitators to effective implementation of WSAs. Barriers and facilitators to implementation were noted throughout both the systemic and individual levels of the school. The most frequently reoccurring barriers included a lack of sufficient teacher training (7 papers, 33% of total), lack of sufficient funding (4 papers, 19% of total) and a failure to secure buy-in from students and staff (5 papers, 24% of total), while facilitators included support from school leadership and parents (6 papers, 29% of total), the appointment of internal or external coordinators (7 papers, 33% of total) and positive student-staff relationships within the school (5 papers, 24% of total).

### Systemic factors

Differing school sizes may result in different WSA outcomes (Block et al., 2014). Teacher training is cited as a crucial component within a WSA (Cheung et al., 2021; Poon-McBrayer & Wong, 2013) but costs associated with teacher training can often be significant and

therefore prevent the effective implementation of a WSA (Roberts & Webster, 2022). Failure to ensure the completion of the relevant training by teachers is also a barrier in itself (Wong et al., 2021).

Buy-in from all members of the school community including parents, teachers, students and non-teaching staff has also been cited across many of the included papers as both a potential barrier (Cowie et al., 2008; Cross et al., 2021) and facilitator (Busch et al., 2013). Feelings of stigmatisation and stereotyping among students can prevent successful buy-in and therefore prevent successful implementation (Brömdal et al., 2021). The failure to obtain sufficient buy-in from the school community can also lead to a negative perception of a WSA from school leaders, which in turn can result in a lack of priority given to the WSA (Dake et al., 2004; Daugherty, 2011). Support from the school leadership and community has been cited as a major facilitator to effective implementation of a WSA (Block et al., 2014).

## Individual factors

The involvement of school counsellors in the delivery of a WSA is also a facilitator to effective implementation, given the suitability of the role of school counsellor to intervention delivery (Cross et al., 2021; Cunningham & Whitten, 2007). Similarly, to the barrier mentioned above, suitable teacher and principal training in the delivery of a WSA can lead to more effective implementation (Dake et al., 2004). Healthy and positive student-staff and school-community relationships are also cited as a major facilitator, whether this relationship pre-exists an intervention or it has been developed during the intervention (Down, 2002; Khan et al., 2012; Poon-McBrayer & Wong, 2013).

As well as a willingness from members of the school community, it is also essential that a WSA is co-ordinated by a qualified team (Ferrante, 2017) or individual (Cross et al., 2021). These co-ordinators may be internally (Ferrante, 2017) or externally appointed to the school as part of the WSA and their importance stems from either their specific expertise in the field of the WSA or their experience in delivering such interventions throughout an entire school.

The appearance of frequently occurring components such as the leadership and student input components can be viewed as a facilitator to effective implementation also, given the success of previous WSAs which incorporate these components (Australian Department of Education, 2013; Cowie et al., 2008; Cross et al., 2021; Heinrichs, 2003; Roberts & Webster, 2022; Wong et al., 2021).

## DISCUSSION AND CONCLUSIONS

The aim of this scoping review was to identify and critically evaluate existing WSAs with the objective of assessing their theoretical underpinning, components, evaluation of effectiveness and barriers and facilitators to effective implementation.

The need for a theoretical underpinning in evidence-based practice has been noted extensively (Fixsen et al., 2013), especially in the implementation of WSAs (Cunningham & Whitten, 2007). Theoretical underpinning of a WSA can provide a level of rigour and internal validity that is significantly greater than that of WSAs which are not theory-based. This theoretical underpinning can also provide additional practical benefits such as promotion, straightforward replicability and easier transferability from one focus to another (i.e., a theoretically underpinned WSA to support mental health can be adapted to support inclusion). A theoretically guided focus can help to identify barriers and facilitators to effective implementation in WSAs, thereby helping to guide the development of more informed practice and policy (Davidoff et al., 2015). The choice of the most appropriate underpinning theory for a WSA has



been cited as crucial, given the findings of reviews that many WSAs and interventions are often inappropriately informed by individualistic psychological theories, and that theories of systems change may have been more appropriate (Ponsford et al., 2022). Interestingly, of the seven papers which explicitly employ a theoretical underpinning, all of them report some form of success in either results or implementation. All of the WSAs discussed in these papers provided useful recommendations for future implementation (Cross et al., 2021; Ferrante, 2017), displayed perceptions of the WSA held by stakeholders (Dake et al., 2004; Daugherty, 2011) or demonstrated significant improvements in a target behaviour (Down, 2002).

In conducting this scoping review, it became apparent that an effectively implemented WSA must contain the following core components: parental involvement, student input, staff training and leadership. Effective WSAs should involve parents and carers in an active way, whether that be in the development or implementation of the approach, or both. Parental input has been cited within recent WSA research as a major facilitator to effective implementation (Lester et al., 2017). Parents and carers should be consulted and consistently informed of any changes to the WSA to achieve an effective home-school partnership (Agius Ferrante, 2012; Busch et al., 2013; Cefai et al., 2021; Cheung et al., 2021; Daugherty, 2011; Heinrichs, 2003; Nielsen et al., 2015).

Similarly, this review found that student input into the development and implementation of a WSA should also be considered a crucial component when developing a WSA. Although the involvement of both parents and the students themselves within the development of a WSA can be met with an initial resistance, extensive teacher training on co-production has been shown to be helpful in overcoming this barrier (Honingh et al., 2020). This training would align with the fundamentals of a co-design process.

Teacher training is one of the most frequently identified components of WSAs. Teacher training is a crucial component of a WSA, with insufficient training, along with a lack of buy-in and perceived need for a WSA, being major predictors of an ineffective implementation of a WSA (Lendrum et al., 2013, as cited in Goldberg et al., 2019). The failure to adequately train teachers, either in the concept or implementation of a WSA, has in turn led to the lack of buy-in and perceived need for the WSA itself (Poon-McBrayer & Wong, 2013). Further research should investigate the effectiveness of in-service versus pre-service training in terms of maintenance of a WSA.

The presence of leadership as a named component in some form in 16 of the 21 included studies comes as no surprise, given the increasing presence of school leadership models over the past 30 years (Bush & Glover, 2014). Given the successful outcomes in these papers which encourage leadership from a variety of school stakeholders beyond the natural school leadership structure, this review highlights the importance of motivating and fostering feelings of leadership throughout the entire school community, and its critical role in achieving effective implementation. If a group develops feelings of ownership and accountability over their own involvement within a school, this will motivate them to fulfil their role within any WSA implementation (Bush & Glover, 2014).

In terms of evaluation of the success of a WSA, many of the articles included in this review do not specifically address the direct effects of the WSA on their chosen target behaviour(s). As mentioned in the results, Down (2002) documents the experiences of three specific Year 10 students who were selected to take part in the 'Learning for Discipline' behaviour WSA, due to their presence at Level Three (of Five) on their school's disciplinary system. The case notes for each student document some improvements (at differing rates) while also acknowledging the presence of confounding factors in the discussion section of this article. The case of the Teacher Effectiveness Enhancement Programme (Institute for Effective Education, 2016) may point towards an issue within the evaluation of a WSA. In this case, the WSA was generally well received by teachers, principals and students yet failed in its aim of significantly improving GCSE scores within the school. When investigated further, due to

the complex nature of this WSA, it is impossible to identify whether ineffective implementation or the programme itself was the cause for this result.

Of particular interest was the finding in Bromdal and colleagues' (2021) work on a WSA to support children with intersex variations, that feelings of stigmatisation and stereotyping among students can prevent successful buy-in from students and therefore prevent successful implementation. This finding is of relevance in terms of marginalised groups such as SEN children, given the feelings of stigmatisation often felt by these students (Alexander-Passe, 2015).

Buy-in from the entirety of the school community remains an ongoing barrier (Dake et al., 2004; Daugherty, 2011) and yet the literature suggests that this must be obtained to create the positive school environment recommended by Cross et al. (2021) as the ideal setting for the effective implementation of a WSA.

## Recommendations for research, development and evaluation of future WSAs

This scoping review was developed to review SEN-focused WSAs, although it quickly became apparent that a lack of relevant research in this area exists. Having now completed this scoping review of WSAs at both the primary and secondary school levels, a number of recommendations for future research can be made.

### Clear theoretical underpinning

A clear theoretical underpinning has been cited as being crucial to the successful development and implementation of a WSA. A WSA which seeks to support children with SEN in primary schools should include clear theoretical underpinning at both the systems and individual levels, given the success of the Wong et al. (2021) paper as shown. A notable finding from this review is that no two WSAs employ the same underpinning theories in their development nor implementation. This points towards a lack of recognition for the importance of a theoretical grounding within WSAs.

Of the many theories cited in the papers included for review, a constructive balance between systems change theories and individual change theories will be most effective in the development and implementation of a WSA. Of particular interest is the recent Wong et al. (2021) student-led intervention, which employs both systems level and individual level theories together, namely Roger's Theory of Diffusion (1962) and Self-Determination Theory (Ryan & Deci, 2024). Of the theories identified, some stood out as having relevance for use within a WSA to support primary school children with SEN, specifically Bronfenbrenner's Bioecological Model (Bronfenbrenner & Ceci, 1994), which emphasises the importance of a child's environmental interactions in the development of traits beyond what is genetically inherited. This model also addresses the effect that work, school and community can have on these interactions, which are in turn influenced by policy and culture. Analysis of this paper suggests that any WSA in the area of SEN must inform future policies, in order to influence the school and community level, which in turn will influence the child's environmental interactions, also named 'proximal processes' by Bronfenbrenner and Ceci (1994).

### Coherent components

Of all of the reviewed papers, only one of these fails to explicitly state the components of its WSA. An effective WSA must contain clear component parts which seek to involve

all stakeholders within a school community, including parents, teachers, school leaders and students themselves in both the development and implementation. It is clear from the completion of this review that the components which occur the most frequently within the included papers (parental involvement, student input, leadership and teacher training) contribute enormously in effective implementation of a WSA. Each of these frequently occurring components appear to be linked in their emphasis on a group or groups taking ownership of the implementation and maintenance of the WSA. In developing WSAs to support socially significant issues, it is clear that coherent components which are linked to a leadership component are crucial to effective implementation. These component parts can then be displayed in a diagrammatic style which is easily legible to students, teachers, parents and the wider school community alike (Roberts & Webster, 2022).

## Direct evaluation

A noted absence in all but a select few of the WSAs reviewed was direct and robust measurement, with even the ones which attempt to self-validate outcomes, failing to account for confounding factors (Institute for Effective Education, 2016). For any WSA to be successfully maintained, an effective method of evaluation of the WSA's effectiveness on specific outcomes will have to be developed. The finding that the TEEP (Institute for Effective Education, 2016) failed to significantly improve GCSE scores in intervention schools was interesting, although the process evaluation undertaken was unable to identify the reason for this failure. It is suggested in this paper that the WSA itself may be too complex for successful implementation to take place within the short GCSE cycle. This suggestion is useful for future WSAs such as the TEEP, as more complex interventions containing more components may have to be implemented across a longer timeframe than initially expected.

## Recognition of barriers and facilitators to effective implementation

In analysing the papers for potential barriers and facilitators to effective implementation, it was noted that buy-in from all stakeholders within the school community is of vital importance to the effective implementation of a WSA (Busch et al., 2013; Cowie et al., 2008; Cross et al., 2021). Buy-in from all these groups will be obtained by constant teacher training, information leaflets and co-production workshops, which will give each group a direct input into the development of the WSA. Teachers must also receive training that allows for their effective delivery of any classroom-level sections, given the importance of teacher training to the effective implementation of a WSA (Cheung et al., 2021; Poon-McBrayer & Wong, 2013; Roberts & Webster, 2022; Wong et al., 2021).

To achieve the desired level of buy-in, training and maintenance of an WSA, the formation of a steering group or committee is recommended. This steering group should be comprised of experts in WSAs as well as the topic of SEN, stakeholders from the school community including parents and teachers, as well as representatives from the school leadership such as the principal. If WSAs are to be implemented efficiently and effectively then careful discussion and planning around underlying theories, evidence-based components, as well as necessary training and maintaining structures and resources are crucial. Future WSAs must also account for the settings and contexts within which WSAs are to take place. Cultural differences may have some bearing on the successful implementation and development of a WSA, especially given their growing popularity in Asia (Sasaki et al., 2023) as an example, where high attainment in education is of greater priority (Dhingra, 2020), possibly gaining greater parental buy-in.

## FUNDING INFORMATION

This review was conducted as the first of a series of studies which will comprise a PhD thesis, which has been funded by the Northern Irish Department for the Economy (DfE) postgraduate scholarship programme. No other external funding was received for the completion of this project.

## CONFLICT OF INTEREST STATEMENT

The authors have no conflicts of interest related to this publication.

## DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

## ETHICS STATEMENT

Ethical Approval was provided by the Ulster University Filter Committee.

## ORCID

Matthew Cavanagh  <https://orcid.org/0000-0003-2883-4050>

## REFERENCES

- Agius Ferrante, C. (2012). A case study of inclusion and diversity: A whole school approach using the social model of disability.
- Alexander-Passe, N. (2015). The dyslexia experience: Difference, disclosure, labelling, discrimination and stigma. *Asia Pacific Journal of Developmental Differences*, 2(2), 202–233.
- Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology*, 8(1), 19–32.
- Australian Department of Education. (2013). National safe schools framework: All Australian schools are safe, supportive and respectful teaching and learning communities that promote student wellbeing. Education Services Australia, on behalf of the Standing Council on School Education and Early Childhood. <https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED590680&site=ehost-live>
- Bartholomaeus, C., & Riggs, D. W. (2017). Whole-of-school approaches to supporting transgender students, staff, and parents. *International Journal of Transgenderism*, 18(4), 361–366.
- Bauer, M. S., Damschroder, L., Hagedorn, H., Smith, J., & Kilbourne, A. M. (2015). An introduction to implementation science for the non-specialist. *BMC Psychology*, 3(1), 1–12.
- Bauer, M. S., & Kirchner, J. (2020). Implementation science: What is it and why should I care? *Psychiatry Research*, 283, 112376.
- Beck, G. J., Hazzard, D., McPhillips, T., Tiernan, B., & Casserly, A. (2017). Dyslexia policy and practice: Cross-professional and parental perspectives on the Northern Ireland context. *British Journal of Special Education*, 44(2), 144–164.
- Blase, K., & Fixsen, D. (2013). Core intervention components: Identifying and operationalizing what makes programs work. ASPE research brief. US Department of Health and Human Services.
- Block, K., Cross, S., Riggs, E., & Gibbs, L. (2014). Supporting schools to create an inclusive environment for refugee students. *International Journal of Inclusive Education*, 18(12), 1337–1355. <https://doi.org/10.1080/13603116.2014.899636>
- Brömdal, A., Zavros-Orr, A., Hunter, L., Hand, K., & Hart, B. (2021). Towards a whole-school approach for sexuality education in supporting and upholding the rights and health of students with intersex variations. *Sex Education*, 21(5), 568–583. <https://doi.org/10.1080/14681811.2020.1864726>
- Bronfenbrenner, U., & Ceci, S. J. (1994). Nature-nurture reconceptualized in developmental perspective: A bioecological model. *Psychological Review*, 101(4), 568–586.
- Brooks, J. S., Scribner, J. P., & Eferakorho, J. (2004). Teacher leadership in the context of whole school reform. *Journal of School Leadership*, 14(3), 242–265.
- Burns, M. K., & Ysseldyke, J. E. (2009). Reported prevalence of evidence-based instructional practices in special education. *The Journal of Special Education*, 43(1), 3–11.
- Busch, V., De Leeuw, R. J. J., & Schrijvers, A. J. P. (2013). Results of a multibehavioral health-promoting school pilot intervention in a Dutch secondary school. *Journal of Adolescent Health*, 52(4), 400–406. <https://doi.org/10.1016/j.jadohealth.2012.07.008>

- Bush, T., & Glover, D. (2003). *School leadership: Concepts and evidence*. National College for School Leadership Nottingham.
- Bush, T., & Glover, D. (2014). School leadership models: What do we know? *School Leadership & Management*, 34(5), 553–571.
- Cefai, C. (2012). Resilience-enhancing classrooms for children with social, emotional and behavioural difficulties. In *The Routledge international companion to emotional and behavioural difficulties* (pp. 184–192). Routledge.
- Cefai, C., Downes, P., & Cavioni, V. (2021). *A formative, inclusive, whole-school approach to the assessment of social and emotional education in the EU*. Analytical Report. ( ). European Commission. <https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED611827&site=ehost-live> <https://doi.org/10.2766/506737>
- Cheung, A. C. K., Xie, C., Zhuang, T., Neitzel, A. J., & Slavin, R. E. (2021). Success for all: A quantitative synthesis of U.S. evaluations. *Journal of Research on Educational Effectiveness*, 14(1), 90–115. <https://doi.org/10.1080/19345747.2020.1868031>
- Cook, B. G., & Odom, S. L. (2013). Evidence-based practices and implementation science in special education. *Exceptional Children*, 79(2), 135–144.
- Cowie, H., Hutson, N., Jennifer, D., & Myers, C. A. (2008). Taking stock of violence in U.K. schools: Risk, regulation, and responsibility. *Education and Urban Society*, 40(4), 494–505.
- Cross, C. T., & Donovan, M. S. (2002). *Minority students in special and gifted education*. National Academies Press.
- Cross, D., & Barnes, A. (2014). Using systems theory to understand and respond to family influences on children's bullying behavior: Friendly schools friendly families program. *Theory Into Practice*, 53(4), 293–299.
- Cross, D., Runions, K. C., & Pearce, N. (2021). Friendly schools' bullying prevention research: Implications for school counsellors. *Journal of Psychologists and Counsellors in Schools*, 31(2), 146–158. <https://doi.org/10.1017/jgc.2021.19>
- Cumbo, J., & Foster, P. (2023). *Number of teachers in England and Wales retiring early jumps by 40% the financial*. Times. <https://www.ft.com/content/459d35d8-fd93-4b10-b0fa-3a0c1fad6285>
- Cunningham, N. J., & Whitten, M. (2007). The role of the middle school counselor in preventing bullying. *Journal of School Counseling*, 5(1), n1.
- Dake, J. A., Price, J. H., & Telljohann, S. K. (2004). Principals' perceptions and practices of school bullying prevention activities. *Health Education & Behaviour*, 31(3), 372–387. <https://doi.org/10.1177/1090198104263359>
- Daugherty, C. S. (2011). *Principal and teacher perceptions of the effectiveness of the Olweus bullying prevention program*. <https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED534764&site=ehost-live> [http://gateway.proquest.com/openurl?url\\_ver=Z39.88-2004&rft\\_val\\_fmt=info:ofi/fmt:kev:mtx:dissertation&res\\_dat=xri:pqdiss&rft\\_dat=xri:pqdiss:3481340](http://gateway.proquest.com/openurl?url_ver=Z39.88-2004&rft_val_fmt=info:ofi/fmt:kev:mtx:dissertation&res_dat=xri:pqdiss&rft_dat=xri:pqdiss:3481340)
- Davidoff, F., Dixon-Woods, M., Leviton, L., & Michie, S. (2015). Demystifying theory and its use in improvement. *BMJ Quality and Safety*, 24(3), 228–238.
- Department of Education (2002). Report of the Task Group on Dyslexia.
- Deppeler, J., & Harvey, D. (2004). Validating the british index for inclusion for the Australian context: Stage one. *International Journal of Inclusive Education*, 8(2), 155–184. <https://doi.org/10.1080/136031103200158033>
- Dhingra, P. (2020). *Hyper education: Why good schools, good grades, and good behaviour are not enough*. NYU Press.
- Down, H. (2002). Towards inclusion: A whole school approach that incorporates the principles of 'discipline for learning' and its effect on three year ten pupils. *Pastoral Care in Education*, 20(3), 29–35. <https://doi.org/10.1111/1468-0122.00234>
- Ferrante, C. A. (2017). An insight into a whole school experience: The implementation of teaching teams to support learning and teaching. *Athens Journal of Education*, 4(4), 339–349.
- Fisher, M. C., Villegas, E., Sutter, C., Musaad, S. M., Koester, B., & Fiese, B. H. (2019). Sprouts growing healthy habits: Curriculum development and pilot study. *Frontiers in Public Health*, 7, 65.
- Fixsen, D., Blase, K., Metz, A., & Melissa, V. D. (2013). Statewide implementation of evidence-based programs. *Exceptional Children*, 79(3), 213–230. <https://doi.org/10.1177/001440291307900206>
- Fixsen, D. L., Blase, K. A., Naoom, S. F., & Wallace, F. (2009). Core implementation components. *Research on Social Work Practice*, 19(5), 531–540.
- Franks, R. P., & Bory, C. T. (2015). Who supports the successful implementation and sustainability of evidence-based practices? Defining and understanding the roles of intermediary and purveyor organizations. *New Directions for Child and Adolescent Development*, 2015(149), 41–56.
- Goldberg, J. M., Sklad, M., Elfink, T. R., Schreurs, K. M., Bohlmeijer, E. T., & Clarke, A. M. (2019). Effectiveness of interventions adopting a whole school approach to enhancing social and emotional development: A meta-analysis. *European Journal of Psychology of Education*, 34, 755–782.
- Grant, M. J., & Booth, A. (2009). A typology of reviews: An analysis of 14 review types and associated methodologies. *Health Information and Libraries Journal*, 26(2), 91–108.

- Heinrichs, R. R. (2003). A whole-school approach to bullying: Special considerations for children with exceptionalities. *Intervention in School and Clinic*, 38(4), 195–204. <https://doi.org/10.1177/105345120303800401>
- Higgins, E., & Booker, R. (2022). The implementation of a whole school approach to mental health and well-being promotion in the Irish primary school context. *Health Education Journal*, 81(6), 649–666.
- Hirschhorn, M., & Geelan, D. (2008). Bridging the research-practice gap: Research translation and/or research transformation. *Alberta Journal of Educational Research*, 54(1), 1–13.
- Hoffmann, T., Bennett, S., & Del Mar, C. (2023). Evidence-based practice across the health professions. *Elsevier Health Sciences*, 1(1), 1–14.
- Honingh, M., Bondarouk, E., & Brandsen, T. (2020). Co-production in primary schools: A systematic literature review. *International Review of Administrative Sciences*, 86(2), 222–239. <https://doi.org/10.1177/0020852318769143>
- Institute for Effective Education. (2016). *Teacher effectiveness enhancement programme: Evaluation report and executive summary*. Education Endowment Foundation. <https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED581110&site=ehost-live>
- Jensen, B. B. (1997). A case of two paradigms within health education. *Health Education Research*, 12(4), 419–428.
- Karim, S., & Hue, M. T. (2023). Determinants of ethnic minority students' sense of belonging in Hong Kong: Teachers' narratives and perspectives. *Asian Ethnicity*, 24(2), 221–242.
- Khan, R. J., Bedford, K., & Williams, M. (2012). Evaluation of the MindMatters buddy support scheme in southwest sydney: Strategies, achievements and challenges. *Health Education Journal*, 71(3), 320–326. <https://doi.org/10.1177/0017896911398818>
- Lendrum, A., Humphrey, N., & Wigelsworth, M. (2013). Social and emotional aspects of learning (SEAL) for secondary schools: Implementation difficulties and their implications for school-based mental health promotion. *Child and Adolescent Mental Health*, 18(3), 158–164.
- Lester, L., Pearce, N., Waters, S., Barnes, A., Beatty, S., & Cross, D. (2017). Family involvement in a whole-school bullying intervention: Mothers' and fathers' communication and influence with children. *Journal of Child and Family Studies*, 26, 2716–2727.
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50, 370–396.
- Moir, T. (2018). Why is implementation science important for intervention design and evaluation within educational settings? *Frontiers in Education*, 3, 61.
- Nielsen, L., Meilstrup, C., Nelausen, M. K., Koushede, V., & Holstein, B. E. (2015). Promotion of social and emotional competence: Experiences from a mental health intervention applying a whole school approach. *Health Education*, 115(3–4), 339–356. <https://doi.org/10.1108/HE-03-2014-0039>
- Orijji, A., & Amadi, R. (2016). E-education: Changing the mindsets of resistant and saboteur teachers. *Journal of Education and Practice*, 7(16), 122–126.
- Park, C. U., & Kim, H. J. (2015). Measurement of inter-rater reliability in systematic review. *Hanyang Medical Reviews*, 35(1), 44–49.
- Peters, M. D., Marnie, C., Tricco, A. C., Pollock, D., Munn, Z., Alexander, L., McInerney, P., Godfrey, C. M., & Khalil, H. (2020). Updated methodological guidance for the conduct of scoping reviews. *JBI Evidence Synthesis*, 18(10), 2119–2126.
- Pham, M. T., Rajić, A., Greig, J. D., Sargeant, J. M., Papadopoulos, A., & McEwen, S. A. (2014). A scoping review of scoping reviews: Advancing the approach and enhancing the consistency. *Research Synthesis Methods*, 5(4), 371–385.
- Ponsford, R., Falconer, J., Melendez-Torres, G., & Bonell, C. (2022). Whole-school interventions promoting student commitment to school to prevent substance use and violence: Synthesis of theories of change. *Health Education Journal*, 5(81), 614–637. <https://doi.org/10.1177/00178969221100892>
- Poon-McBrayer, K., & Wong, P. (2013). Inclusive education services for children and youth with disabilities: Values, roles and challenges of school leaders. *Children and Youth Services Review*, 35(9), 1520–1525. <https://doi.org/10.1016/j.childyouth.2013.06.009>
- Procter, T., Roberts, L., Macdonald, I., Morgan-Clare, A., Randell, B., & Banerjee, R. (2021). Best practice review of whole school approach (WSA) within MHSTs in the south-east and east of England evaluation report.
- Roberts, J., & Webster, A. (2022). Including students with autism in schools: A whole school approach to improve outcomes for students with autism. *International Journal of Inclusive Education*, 26(7), 701–718. <https://doi.org/10.1080/13603116.2020.1712622>
- Rogers, B. (2000). *Behaviour management: A whole-school approach*. Sage.
- Rogers, E. M., Singhal, A., & Quinlan, M. M. (2014). Diffusion of innovations. In *An integrated approach to communication theory and research* (pp. 432–448). Routledge.
- Romney, A., Somerville, M. P., & Baines, E. (2022). The facilitators and barriers to implementing emotion coaching following whole-school training in mainstream primary schools. *Educational Psychology in Practice*, 38(4), 392–409.

- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, *55*(1), 68–78. <https://doi.org/10.1037/0003-066X.55.1.68>
- Ryan, R. M., & Deci, E. L. (2024). Self-determination theory. In *Encyclopedia of Quality of Life and Well-Being Research* (pp. 6229–6235). Springer.
- Sasaki, O., Yonehara, A., & Kitamura, Y. (2023). The influence of the whole school approach on implementing education for sustainable development in Japan. *Prospects*, *54*, 1–18.
- Shaya, F. T., Flores, D., Gbarayor, C. M., & Wang, J. (2008). School-based obesity interventions: A literature review. *Journal of School Health*, *78*(4), 189–196.
- Stirling, S., & Emery, H. (2016). *A whole school framework for emotional well-being and mental health*. London: National Children's Bureau.
- Thomas, J., & Harden, A. (2008). Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC Medical Research Methodology*, *8*, 1–10.
- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., Moher, D., Peters, M. D., Horsley, T., Weeks, L., Hempel, S., Akl, E. A., Chang, C., McGowan, J., Stewart, L., Hartling, L., Aldcroft, A., Wilson, M. G., Garritty, C., ... Straus, S. E. (2018). PRISMA extension for scoping reviews (PRISMA-ScR): Checklist and explanation. *Annals of Internal Medicine*, *169*(7), 467–473. <https://doi.org/10.7326/M18-0850>
- Varghese, C., Bratsch-Hines, M., Aiken, H., & Vernon-Feagans, L. (2021). Elementary teachers' intervention fidelity in relation to reading and vocabulary outcomes for students at risk for reading-related disabilities. *Journal of Learning Disabilities*, *54*(6), 484–496.
- Wong, A., Szeto, S., Lung, D. W. M., & Yip, P. S. F. (2021). Diffusing innovation and motivating change: Adopting a student-led and whole-school approach to mental health promotion. *Journal of School Health*, *91*(12), 1037–1045. <https://doi.org/10.1111/josh.13094>
- Wong, D. S. W., Cheng, C. H. K., Ngan, R., & Ma, S. K. (2011). Program effectiveness of a restorative whole-school approach for tackling school bullying in Hong Kong. *International Journal of Offender Therapy and Comparative Criminology*, *55*(6), 846–862. <https://doi.org/10.1177/0306624X10374638>
- World Health Organisation. (2021). *Assessing the existing evidence base on school food and nutrition policies: a scoping review*. World Health Organization.
- Wyn, J., Cahill, H., Holdsworth, R., Rowling, L., & Carson, S. (2000). MindMatters, a whole-school approach promoting mental health and wellbeing. *The Australian and New Zealand Journal of Psychiatry*, *34*(4), 594–601.

**How to cite this article:** Cavanagh, M., McDowell, C., Connor Bones, U. O., Taggart, L., & Mulhall, P. (2024). The theoretical and evidence-based components of whole school approaches: An international scoping review. *Review of Education*, *12*, e3485. <https://doi.org/10.1002/rev3.3485>

## APPENDIX 1

## PRISMA-SCR Checklist

Section	Item	Prisma-ScR checklist item	Reported on page no.
Title			
Title	1	Identify the report as a scoping review.	1
Abstract			
Structured summary	2	Provide a structured summary that includes (as applicable): background, objectives, eligibility criteria, sources of evidence, charting methods, results, and conclusions that relate to the review questions and objectives.	1
Introduction			
Rationale	3	Describe the rationale for the review in the context of what is already known. Explain why the review questions/objectives lend themselves to a scoping review approach.	2
Objectives	4	Provide an explicit statement of the questions and objectives being addressed with reference to their key elements (e.g., population or participants, concepts, and context) or other relevant key elements used to conceptualise the review questions and/or objectives.	8
Methods			
Protocol and registration	5	Indicate whether a review protocol exists; state if and where it can be accessed (e.g., a Web address); and if available, provide registration information, including the registration number.	8
Eligibility criteria	6	Specify characteristics of the sources of evidence used as eligibility criteria (e.g., years considered, language and publication status), and provide a rationale.	12
Information sources <sup>a</sup>	7	Describe all information sources in the search (e.g., databases with dates of coverage and contact with authors to identify additional sources), as well as the date the most recent search was executed.	9
Search	8	Present the full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	10
Selection of sources of evidence <sup>b</sup>	9	State the process for selecting sources of evidence (i.e., screening and eligibility) included in the scoping review.	9
Data charting process <sup>c</sup>	10	Describe the methods of charting data from the included sources of evidence (e.g., calibrated forms or forms that have been tested by the team before their use, and whether data charting was done independently or in duplicate) and any processes for obtaining and confirming data from investigators.	14
Data items	11	List and define all variables for which data were sought and any assumptions and simplifications made.	10

(Continues)



## APPENDIX 1 (Continued)

Section	Item	Prisma-ScR checklist item	Reported on page no.
Critical appraisal of individual sources of evidence <sup>d</sup>	12	If done, provide a rationale for conducting a critical appraisal of included sources of evidence; describe the methods used and how this information was used in any data synthesis (if appropriate).	15
Synthesis of results	13	Describe the methods of handling and summarising the data that were charted.	16
<b>Results</b>			
Selection of sources of evidence	14	Give numbers of sources of evidence screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally using a flow diagram.	16
Characteristics of sources of evidence	15	For each source of evidence, present characteristics for which data were charted and provide the citations.	16
Critical appraisal within sources of evidence	16	If done, present data on critical appraisal of included sources of evidence (see item 12).	17
Results of individual sources of evidence	17	For each included source of evidence, present the relevant data that were charted that relate to the review questions and objectives.	16–28
Synthesis of results	18	Summarise and/or present the charting results as they relate to the review questions and objectives.	16–28
<b>Discussion</b>			
Summary of evidence	19	Summarise the main results (including an overview of concepts, themes, and types of evidence available), link to the review questions and objectives, and consider the relevance to key groups.	29
Limitations	20	Discuss the limitations of the scoping review process.	35
Conclusions	21	Provide a general interpretation of the results with respect to the review questions and objectives, as well as potential implications and/or next steps.	35
<b>Funding</b>			
Funding	22	Describe sources of funding for the included sources of evidence, as well as sources of funding for the scoping review. Describe the role of the funders of the scoping review.	2

Abbreviations: JBI, Joanna Briggs Institute; PRISMA-ScR, Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews.

<sup>a</sup>Where *sources of evidence* (see second footnote) are compiled from, such as bibliographic databases, social media platforms, and websites.

<sup>b</sup>A more inclusive/heterogeneous term used to account for the different types of evidence or data sources (e.g., quantitative and/or qualitative research, expert opinion, and policy documents) that may be eligible in a scoping review as opposed to only studies. This is not to be confused with *information sources* (see first footnote).

<sup>c</sup>The frameworks by Arksey and O'Malley (6) and Levac and colleagues (7) and the JBI guidance (4, 5) refer to the process of data extraction in a scoping review as data charting.

<sup>d</sup>The process of systematically examining research evidence to assess its validity, results, and relevance before using it to inform a decision. This term is used for items 12 and 19 instead of 'risk of bias' (which is more applicable to systematic reviews of interventions) to include and acknowledge the various sources of evidence that may be used in a scoping review (e.g., quantitative and/or qualitative research, expert opinion and policy document).

## APPENDIX 2

### Example Search String—Medline OVID, PsycINFO

#### Keywords

(Whole School Approach OR Whole-School Approach OR WSA) AND (Primary School OR Elementary School OR Primary Education OR Elementary Education) AND (Special Educational Needs OR SEN OR Learning Disabilities OR Exceptionalities)

(Whole School Approach OR Whole-School Approach OR WSA) AND (Primary School OR Elementary School OR Primary Education OR Elementary Education) AND (Bullying OR Anti-Bullying)

(Whole School Approach OR Whole-School Approach OR WSA) AND (Primary School OR Elementary School OR Primary Education OR Elementary Education) AND (Inclusion OR Inclusive Education)

(Whole School Approach OR Whole-School Approach OR WSA) AND (Primary School OR Elementary School OR Primary Education OR Elementary Education) AND (Mental Health OR Mental Illness OR Mental Wellbeing)

## APPENDIX 3

### Data Extraction Tool

This tool focuses on the aims and objectives of the scoping review.

#### Aims and objectives of this scoping review

The aim of this scoping review is to identify and provide an evaluation of the existing international literature regarding the use of WSAs to inform the development of a WSA to support primary school children with dyslexia.

This aim will be achieved through the completion of the following objectives:

1. Identify the theories underpinning the use of whole school approaches.
2. Investigate the systems components required to successfully implement an effective whole school approach.
3. Determine the methods of measuring a whole school approach.
4. Identify the facilitators and barriers to the successful implementation and maintenance of a whole school approach.

Headings included:

Title and Abstract, Introduction, Theoretical Design and Aims, Systems Components, Outcome Measurements, Facilitators and Barriers to Implementation, and Impact of Whole School Approach.

	<b>Title and abstract</b>	<b>Yes</b>	<b>No</b>
Title and abstract of the paper	<p>Was the paper clearly identified as a whole school approach in the title/abstract?</p> <p>Was the topic of the whole school approach clearly defined in the title/abstract?</p> <p>Was the aim of the whole school approach clearly defined in the title/abstract?</p> <p>Was the theory underpinning the whole school approach clearly defined in the title/abstract?</p> <p>Were the systems components clearly defined in the title/abstract?</p> <p>Was the evaluation of the whole school approach identified in the title/abstract?</p> <p>Were any facilitators or barriers to whole school approach Implementation identified in the title/abstract?</p>		
	<b>Introduction</b>	<b>Yes</b>	<b>No</b>
Introduction/rationale for the whole school approach	<p>Was there any previous research which recommended the use of a whole school approach within this topic?</p> <p>Has this particular whole school approach been implemented before?</p>		
	<b>Theoretical Underpinning and Aims</b>	<b>Yes</b>	<b>No</b>
Underlying theory and aims of the whole school approach	<p>Was there a clear theoretical underpinning?</p> <p>Were the aims clearly defined?</p> <p>Did the aims relate to the development of a whole school approach?</p> <p>Can the theories used in this study be used in the development of a WSA to support primary school children with dyslexia?</p>		
Author-identified underpinning theories (include page no.):			
Reviewer-identified underpinning theories (include page no.):			
	<b>Systems Components</b>	<b>Yes</b>	<b>No</b>
Systems components of whole school approaches	<p>Were the components of the whole school approach defined?</p> <p>Were the components of the whole school approach effectively implemented and maintained?</p> <p>Were the sample groups of students clearly defined?</p> <p>Did the student sample have SEN and/or dyslexia?</p> <p>Can the systems components used within this whole school approach be used within a WSA to support primary school children with dyslexia?</p>		
Author-identified systems components (include page no.):			
Reviewer-identified systems components (include page no.):			

**APPENDIX 3** (Continued)

	<b>Evaluation</b>	<b>Yes</b>	<b>No</b>
Outcome measurements for whole school approaches	Were the outcome measurements clearly defined?		
	Were the outcomes measurements effectively evaluated?		
	Were student attitudes and experiences recorded?		
	Were teacher attitudes and experiences recorded?		
	Were classroom assistant's attitudes and experiences recorded?		
	Were parent's attitudes and experiences recorded?		
	Can the outcome measurements used within this whole school approach be used within a WSA to support primary school children with dyslexia?		

Author-identified evaluation:

	<b>Barriers and facilitators to implementation</b>	<b>Yes</b>	<b>No</b>
Barriers and facilitators to implementation of a whole school approach	Were any barriers to implementation of the whole school approach identified?		
	Were any facilitators to implementation of the whole school approach identified?		
	Were barriers and facilitators considered prior to implementation?		
	Was there any acknowledgement of barriers which were overcome?		
	Were any recommendations made for overcoming barriers in future research?		

Author-identified barriers Author-identified facilitators

Reviewer-identified barriers Reviewer-identified facilitators

	<b>Impact</b>	<b>Yes</b>	<b>No</b>
Impact of the whole school approach	Were any recommendations for future whole school approaches made?		
	Was follow-up conducted to investigate the maintenance of the whole school approach?		
	Will the whole school approach implemented be used in other studies?		
	Can this whole school approach help to inform the development of a WSA to support primary school children with dyslexia?		

Author-identified impact (include page no.):

Reviewer-identified impact (include page no.):

## APPENDIX 4

## Table of Included Papers

Citation	Concept of paper	Study population	Context	Design	Components of whole school approach	Key findings related to research questions
Australian Department of Education (2013) Australia	Guidelines for the implementation and maintenance of a safe, supportive and protective learning community that promotes student safety and well-being	Primary school children throughout Australia	Policy document which informs schools on the fundamental role which a school can play in student well-being	Guideline development	<ol style="list-style-type: none"> <li>1. Leadership commitment to a safe school</li> <li>2. A supportive and connected school culture</li> <li>3. Policies and procedures</li> <li>4. Professional learning</li> <li>5. Positive behaviour management</li> <li>6. Engagement, skill development and safe school curriculum</li> <li>7. A focus on student well-being and student ownership</li> <li>8. Early intervention and targeted support</li> <li>9. Partnerships with families and community</li> </ol>	<p>No explicit underpinning theory</p> <p>No direct measurement</p> <p>No explicit mention of barriers nor facilitators to implementation</p>
Block et al. (2014) Australia	This paper presents the results of an evaluation of the School Support Programme operating in schools in Victoria, Australia	Refugee-background primary and secondary school students	The School Support Programme has been developed to improve the outcomes for displaced students	This evaluation uses a mixed methods design, quantitative data detailed the extent of change brought about by the programme; qualitative interviews assessed stakeholder experiences of the programme both quantitative and qualitative data informed the evaluation of the programme partnerships	<ol style="list-style-type: none"> <li>1. Implementing a Refugee Support Team made up of staff</li> <li>2. Professional learning workshops for this team</li> <li>3. Professional learning workshops for all staff</li> <li>4. Refugee Readiness Audit of the school to assess strengths and weaknesses of the school in terms of supporting refugees</li> <li>5. Developing an action plan in collaboration with School Support Workers</li> </ol>	<p>No explicit underpinning theory although based upon several existing frameworks</p> <p>This paper shows that the School Support Programme <i>increases</i> school readiness to support refugee-background students</p> <p><i>Barriers</i></p> <p>More difficult in larger schools, time and resource restraints</p> <p><i>Facilitators</i></p> <p>School Leadership Support</p>

**APPENDIX 4** (Continued)

Citation	Concept of paper	Study population	Context	Design	Components of whole school approach	Key findings related to research questions
Brömdal et al. (2021) Australia	This paper advocates for and seeks to offer recommendations on how schools might enact a whole-school approach for sexuality education	Primary and secondary students with intersex variations	Students with intersex variations often encounter significant harm including discrimination and bullying in school spaces	Discussion paper	<ol style="list-style-type: none"> <li>1. Supportive policies</li> <li>2. Informed language use</li> <li>3. Teacher training</li> <li>4. Support for the whole school community</li> <li>5. Intersex-specific initiatives</li> </ol>	No explicit underpinning theory but has adapted the headings and points used in Bartholomaeus and Riggs (2017) in their 'Whole of School Approach' <i>Barriers</i> Stigma/stereotyping Binary bodily norms <i>Facilitators</i> Draws on recommendations from scholars Self-reflection on previous work
Busch et al. (2013) Netherlands	This report describes the results of a pilot study of a secondary school-based health promotion intervention that simultaneously targets a range of adolescent health behaviours via a whole school approach	Secondary school students	Adolescent health-related behaviours have recently been shown to be interrelated, which highlights the need for a whole school approach which targets numerous behaviours simultaneously	Pilot study	<ol style="list-style-type: none"> <li>1. Teacher training</li> <li>2. Parental involvement</li> <li>3. Networking with other schools</li> <li>4. Co-operation with experts</li> <li>5. Supportive school community for teachers</li> </ol>	No explicit underpinning theory Barriers and facilitators not discussed at length, although the existing supportive school community can be seen as a facilitator
Cefai et al. (2021) Luxembourg	This paper aims to assess learner's social and emotional competencies, both in the classroom and in terms of the whole school	EU member state students undergoing social and emotional education	Social and emotional education has been highlighted by the EU as being of crucial importance in member state curricula	Review of international research	<ol style="list-style-type: none"> <li>1. Parental involvement</li> <li>2. Strength-focused</li> <li>3. Holistic approach</li> <li>4. Cultural diversity</li> <li>5. Privacy</li> <li>6. Relationships</li> <li>7. Sense of school community</li> </ol>	No explicit underpinning theory This paper makes numerous recommendations for the implementation of this whole school approach in Chapter 7

(Continues)

## APPENDIX 4 (Continued)

Citation	Concept of paper	Study population	Context	Design	Components of whole school approach	Key findings related to research questions
Cheung et al. (2021) USA	This paper provides a quantitative synthesis of evaluations of the Success for All (SFA) whole school approach which aims to assist in literacy in USA schools	The SFA approach assists children at kindergarten level and implements foundations to allow them to continue to develop as they grow older	Success for All is a whole-school model that addresses instruction, particularly in reading, as well as school-wide issues related to leadership, attendance, school climate, behaviour management, parent involvement and health	Meta-analysis	<ol style="list-style-type: none"> <li>Literacy instruction</li> <li>Teacher training</li> <li>Reading tutors</li> <li>Leadership</li> <li>Familial involvement</li> <li>Program facilitator</li> </ol>	<p>No explicit underpinning theory</p> <p>No explicit measurement of the effectiveness of the intervention</p>
Cowie et al. (2008) UK	This article documents the important issues in school violence and bullying in the United Kingdom	Secondary school students	The issue of violence and bullying within schools had been rising and effective prevention was required	Discussion paper	<ol style="list-style-type: none"> <li>Circle time</li> <li>Peer support</li> <li>Restorative practices</li> <li>Building self-esteem</li> <li>Input from students</li> </ol>	<p>No explicit theoretical underpinning</p> <p>Appears to be a lack of parental input</p>
Gross et al. (2021) Australia	This article describes the implications of Friendly Schools' research findings relevant and applicable to the work of school counsellors, as part of a whole-school approach to bullying prevention	School counsellors in primary and secondary schools	Given the time constraints experienced by school counsellors, evidence is needed to guide their unique contributions to a whole school approach	Discussion paper	<ol style="list-style-type: none"> <li>Whole-school activities involving counsellors</li> <li>Teaching and learning activities</li> <li>Family and community engagement with counsellors</li> <li>Individual activities which provide early intervention</li> <li>Targeted support for victimised students</li> </ol>	<p>Bronfenbrenner Ecological Systems Theory as well as Sociocological and Family Systems Theory</p> <p><i>Barriers</i></p> <p>The demands on time and expertise of school counsellors.</p> <p>Need for buy-in beyond school counsellors</p> <p><i>Facilitators</i></p> <p>School counsellors are the most appropriate staff members to deal with bullying</p>

**APPENDIX 4** (Continued)

Citation	Concept of paper	Study population	Context	Design	Components of whole school approach	Key findings related to research questions
Cunningham & Whitten (2007) USA	This article provides middle school counsellors with an understanding of early adolescent bullying	Middle school counsellors	The role of the American School Counsellor became more crucial to bullying prevention as reports of school bullying increased in the early 2000s	Discussion paper	Four key components identified: 1. Awareness and problem assessment 2. School climate strategies 3. Classroom strategies 4. Strategies for individuals involved in bullying	This paper mentions the Olweus Bullying Prevention Program (2004) Explicitly states that an effective WSA should be theory driven <i>Facilitators</i> School counsellors are the most appropriate staff to deal with bullying
Dake et al. (2004) USA	The purpose of this study was to examine principals' perceptions and practices regarding bullying prevention	School principals	Bullying had been cited as a major precipitating factor in school violence. The principals' perceptions of the extent of bullying in their schools was investigated	Qualitative survey design	This paper did not explicitly state any components in particular but used a 'Stages of Change Model'	The survey instrument was developed based on the stages of change component of the transtheoretical model and the barriers component of the health belief model The findings only relate to bullying and cannot be generalised beyond standard staff training needs <i>Barriers</i> Success depended on which of the 'Stages of Change' the school was at <i>Facilitators</i> Principals who had received training on bullying prevention were more likely to hold anti-bullying conferences

(Continues)



## APPENDIX 4 (Continued)

Citation	Concept of paper	Study population	Context	Design	Components of whole school approach	Key findings related to research questions
Daugherty (2011) USA	The purpose of this study was to explore the effectiveness of the Olweus Bullying Prevention Program (OBPP)	Elementary school teachers and principals	The OBPP used a whole-school approach and taught common vocabulary to define the word bullying. The OBPP was one of the better-known programs; however, there were contradictory reports on its effectiveness	Mixed methods research	The OBPP consisted of a school-based program devised at four levels each with an example of a component: <ol style="list-style-type: none"> <li>1. School level (parental involvement)</li> <li>2. Classroom level (class rules against bullying)</li> <li>3. Individual level (individual plans for those with bullying behaviours)</li> <li>4. Community level (dissemination of messages from the group to the community)</li> </ol>	Theory—Maslow's Hierarchy of Needs
Deppeler & Harvey (2004) UK/Australia	This paper presents a summary of outcomes from the first stage of a 3-year project funded through the Australian Research Council Strategic Partnership Industry Research Training (ARC-SPIRT) scheme and the Catholic Education Office in Victoria	Catholic primary and secondary school students	The need for inclusive schooling stems from the UN Salamanca Statement in which member states have committed to preventing marginalisation within the school system	Longitudinal study	This study took place across nine schools which were committed to inclusion. The major components common to each were: <ol style="list-style-type: none"> <li>1. Creating Inclusive Cultures</li> <li>2. Producing Inclusive Practice</li> <li>3. Evolving Inclusive Policies</li> </ol>	No explicit underpinning theory This study uses a six-phase process of validation and modification One major barrier to implementation is the lack of training on inclusive schooling available to school staff

**APPENDIX 4** (Continued)

Citation	Concept of paper	Study population	Context	Design	Components of whole school approach	Key findings related to research questions
Down (2002) UK	This paper describes how a school has sought to create a more inclusive ethos and improve standards of behaviour through the introduction of a structured programme, 'Discipline for Learning'	Three specific students who had been introduced to the programme	Year 10 students who were selected because they presented major behavioural difficulties and had either been excluded from another school, or were at risk of exclusion from Woolmer Hill or they were on Step Three (of Five) or above on the school's own disciplinary procedure	Case studies	'Categories' 1. Teacher response to behaviour 2. Whole school policy 3. Rules, rewards 4. Sanctions	No explicit underpinning theory Each case study notes improvements made by each child as a form of measurement of the success of the WSA while also acknowledging possible confounding factors. <i>Barriers</i> Inconsistent delivery Lack of support at home Negativity of some teachers towards children Teacher behaviour and attitude <i>Facilitators</i> Buy in from all members of the school community Strong pupil-staff relationships
Agius Ferrante (2012) Malta	This thesis evaluates the experiences of a Maltese school that decided to embrace the philosophy of inclusion. It provides a synthesis of knowledge about the processes of inclusive education, derived from the experience of the main stakeholders in the school	Main stakeholders in a Maltese mixed-ability boys school	This school has been striving towards developing inclusive practices in response to learner diversity, moving from mainstreaming to integration, and now to a process of inclusion	A case study approach is used in order to evaluate this school's process of inclusion and its ramifications on stakeholders. Both qualitative and quantitative methods were used including focus groups, interviews, observations, parent questionnaires, teacher attitude/practice questionnaires	1. Adapting the curriculum to suit the student's learning 2. Peer support 3. Parental involvement 4. Communication between stakeholders 5. Home school links 6. Collaboration with parents	Theory—Social Model of Disability <i>Barriers</i> Possible lack of objectivity and generalisability of results Male only pupils Only one school <i>Facilitators</i> Stakeholder engagement

(Continues)

## APPENDIX 4 (Continued)

Citation	Concept of paper	Study population	Context	Design	Components of whole school approach	Key findings related to research questions
Heinrichs (2003) USA	This article identifies and discusses key components of a research-based, whole-school approach to bullying prevention, focusing on special considerations for children with exceptionalities	Primary and secondary school children with exceptionalities	Embracing an effective bullying prevention programme can greatly improve outcomes for children with special needs and disabilities	Discussion paper	<ol style="list-style-type: none"> <li>1. Adult awareness and involvement</li> <li>2. Questionnaire survey</li> <li>3. Effective supervision during breaks</li> <li>4. Educational teacher discussion groups</li> <li>5. Formation of a coordinating group</li> <li>6. Class rules against bullying</li> <li>7. Class meetings with students</li> <li>8. Serious talks with bullies and targets</li> <li>9. Serious talks with parents of involved students</li> </ol>	No explicit underpinning theory but this WSA conceptualises bullying from an environmental perspective with the characteristics and needs of the individual child at the very centre. Attitudes of teachers and other adults towards bullying can be both a barrier and facilitator. This article gives recommendations for WSA development.
Institute for Effective Education (2016) UK	The Teacher Effectiveness Enhancement Programme (TEEP) is a CPD programme that aims to improve teachers' classroom practice. TEEP training is offered as a whole-school approach by the Schools, Students and Teachers Network (SSAT). All staff in a school received 3 days of training over a period of two terms	Post-primary teachers in struggling schools	TEEP aims to improve teachers' classroom practice by enabling them to reflect on their current practice, align this to a pedagogical framework, and to implement teaching strategies that nurture and develop the characteristics of effective learning in their students	Executive summary	The TEEP model can be broken down into a three-tier taxonomy of thinking for teachers which goes on to describe the components of the intervention	No explicit underpinning theory although does put forward a pedagogical framework to align an intervention to

APPENDIX 4 (Continued)

Citation	Concept of paper	Study population	Context	Design	Components of whole school approach	Key findings related to research questions
Khan et al. (2012) Australia	This article assesses the strategies, achievements and challenges of implementing MindMatters and the views of partner schools towards the buddy support scheme	Representatives from secondary schools in Sydney	The MindMatters buddy support scheme (2007–2008) was designed to increase the capacity of secondary schools to adopt a whole-school approach to improving health and well-being of the school community. Fourteen schools received support from health workers and funding	Qualitative interviews and thematic analysis	<ol style="list-style-type: none"> <li>1. Development and training strategy</li> <li>2. Website</li> <li>3. Quarterly newsletter</li> <li>4. Evaluation process</li> </ol>	<p>No explicit theoretical underpinning</p> <p><b>Barriers</b></p> <ul style="list-style-type: none"> <li>Time constraints</li> <li>Lack of training</li> <li>Scepticism</li> <li>Communication/Commitment gaps</li> <li>Too large core teams</li> <li>Difficulty in applying MindMatters to ethnically diverse groups</li> </ul> <p><b>Facilitators</b></p> <ul style="list-style-type: none"> <li>Positive attitude from staff</li> <li>Effective pastoral care team</li> <li>Executive support for staff training</li> <li>Extremely healthy relationship with the area health service</li> <li>Funding from health service</li> </ul>
Nielsen et al. (2015) Denmark	The purpose of this paper is to present the intervention <i>Up</i> and document changes in social and emotional competence among schoolchildren before and after the intervention	11–15-year-old schoolchildren in two Danish schools	Social and emotional competence is an integral part of many school-based mental health interventions but only a minority of interventions measure changes in competences	<p>Research paper</p> <p><i>Up</i> was implemented in two Danish schools in 2010–2011. Social and emotional competence was measured among 11–15-year-old schoolchildren before (response rate 96.2 per cent, <math>n=589</math>) and after (response rate 83.9 per cent, <math>n=532</math>) the intervention</p>	<p><i>Up</i> consists of four components:</p> <ol style="list-style-type: none"> <li>1. Education and activities for schoolchildren</li> <li>2. Development of staff skills</li> <li>3. Involvement of parents</li> <li>4. Initiatives in everyday life at school</li> </ol>	<p>The <i>Up</i> intervention is built upon the IVAC (Investigation, Vision, Action for Change) didactic model</p> <p>Successful intervention—social and emotional competence increases in Danish schools which implement <i>Up</i></p> <p><b>Barriers</b></p> <ul style="list-style-type: none"> <li>No standardised approach to measuring social and emotional competence</li> <li>Reliance on self-reported data as a means of measurement</li> <li>Answering self-reported questionnaires requires reading ability and maturity</li> <li>Expensive implementation costs</li> </ul> <p><b>Facilitators</b></p> <ul style="list-style-type: none"> <li>Implemented by a team of specialists</li> </ul>

(Continues)

## APPENDIX 4 (Continued)

Citation	Concept of paper	Study population	Context	Design	Components of whole school approach	Key findings related to research questions
Poon-McBrayer & Wong (2013) Hong Kong	The purpose of this qualitative study is to uncover the reasons for school leaders' decision to participate in and what they did to facilitate the school-wide effort to practise inclusive education, as well as challenges encountered	Six primary school principals and four secondary school principals from resource schools recognised for their proficient practices in adopting whole school approach to cater for student diversity	Implementing inclusive education requires significant changes to values, systems, and practices Data on what has led school leaders to join the reform under the policy of voluntary participation and how they tackle problems during implementation cannot be located	Qualitative research paper	1. Clear communication 2. Shared vision 3. Empowerment 4. Teacher involvement and training (pre and in-service)	No explicit underpinning theory Religion a major predictive factor in inclusive education, partnership with teachers and a shared vision as the key to successful implementation <b>Barriers</b> Inadequate teacher training Inadequate resources Little parental involvement <b>Facilitators</b> Shared vision throughout the school community
Roberts & Webster (2022) Australia	This paper describes the development and theoretical foundation of the school-wide Autism Competency approach, which provides schools with a whole-of-school approach to supporting students with autism	Primary and secondary students with autism	Previous research has found that school staff often lack knowledge about the specific characteristics and needs of students with autism and the practices that effectively support these students in inclusive education settings	Discussion paper	Action research School-wide assessment and review systems	This whole school approach is based on the Fixsen et al. (2013) work on implementing evidence-based programmes Staff stress levels reduced because of proactive approach Reduced long-term costs <b>Barriers</b> Costs associated with teacher training Need for teachers to be released from classes <b>Facilitators</b> Action research process in which individuals are not research subjects but joint constructors of the research, which focuses on community action towards a social problem

**APPENDIX 4** (Continued)

Citation	Concept of paper	Study population	Context	Design	Components of whole school approach	Key findings related to research questions
Wong et al. (2021) USA	A case study is presented to demonstrate how a Year 9 student-led intervention came about, inspired changes in the school organisation and members and transformed the school's approach to mental health promotion	Secondary school student leaders and adult advisors involved in student-led intervention	Research suggests that a whole-school approach to mental health promotion can be more effective than a compartmentalised approach. Student-led initiatives have demonstrated a positive impact on students' mental health, though not without systemic and individual barriers	Case study including qualitative interviews	<ol style="list-style-type: none"> <li>1. Recruiting school members with enthusiasm</li> <li>2. Positive attitudes towards the program</li> <li>3. Training</li> <li>4. Consulting experts</li> <li>5. Student leadership</li> </ol>	<p>Roger's Diffusion of Innovation Theory, Theory of Motivation &amp; Self-Determination Theory discussed.</p> <p><i>Barriers</i></p> <ul style="list-style-type: none"> <li>Lack of teacher training on student distress</li> <li>Student's preconceptions about mental health</li> </ul> <p><i>Facilitators</i></p> <ul style="list-style-type: none"> <li>Teachers were able to learn from student leaders and the reactions of students to these leaders</li> </ul>