

2018

Guidelines for designing middle-school transition using universal design for learning principles

Dianne Chambers

The University of Notre Dame Australia, dianne.chambers1@nd.edu.au

Anne Coffey

The University of Notre Dame Australia, anne.coffey@nd.edu.au

Follow this and additional works at: https://researchonline.nd.edu.au/edu_article



Part of the [Education Commons](#)

This article was originally published as:

Chambers, D., & Coffey, A. (2018). Guidelines for designing middle-school transition using universal design for learning principles. *Improving Schools, Early View (Online First)*.

Original article available here:

[10.1177/1365480218817984](https://doi.org/10.1177/1365480218817984)

This article is posted on ResearchOnline@ND at https://researchonline.nd.edu.au/edu_article/215. For more information, please contact researchonline@nd.edu.au.



This is the author's version of an article published in *Improving Schools*.

The final published version available: <https://doi.org/10.1177/1365480218817984>

Chambers, D., and Coffey, A. (2018) Guidelines for designing middle-school transition using universal design for learning principles. *Improving Schools. Early View Online First*. doi: 10.1177/1365480218817984

Guidelines for Designing Middle School Transition using Universal Design for Learning

Principles

Dianne Chambers & Anne Coffey

University of Notre Dame Australia

Abstract

Transition from primary (elementary) to secondary school can be both an exciting and daunting prospect for young adolescents. Ensuring that students quickly settle into their new secondary school environment is the goal of transition programs employed by schools. These programs typically comprise a number of discrete and interrelated initiatives that often commence in the year prior to the move and continue during the initial months in the new school. These activities generally include specific initiatives for both the students and their parents. The needs of both groups are many and varied. It is critical that whatever transition events and strategies are planned, the needs of all students and parents are catered for. In this paper the authors propose that the principles of Universal Design for Learning (UDL) may provide a useful basis for the development of transition programs that address the needs of all participants. UDL is based on three principles which are; multiple means of engagement, multiple means of representation, and multiple means of action and expression. Examples outlining how these principles can be applied before, during and after transition are provided. The authors conclude with the proposition that research be conducted in a variety of cultural contexts and across countries to investigate whether transition programs based on UDL principles better enable schools to meet the needs of all transitioning students and their parents.

Keywords: Transition, middle school, diversity, universal design for learning, transition programs, UDL.

Introduction

In many Western schools, including those in Australia, the move from primary (elementary) school to secondary school may be considered a normal and expected facet of a child's progression through the years of formal schooling. However, as with any transition experienced throughout life, challenges and hurdles may occur during the process, particularly for diverse student groups (Deacy, Jennings & O'Halloran, 2015). Some students make the move seamlessly whilst for others the difficulties experienced in adjusting to their new school environment impact their future educational outcomes (Ashton, 2008; Pendergast, Main & Bahr, 2017). Schools have tended to examine their own internal practices and replicate past strategies to address the transition needs of students (Galton & McLellan, 2018). Hence, a wide variety of programs have tended to develop, both in Australia and in specific contexts across countries, which may or may not meet the needs of all students, including those from diverse backgrounds, and those with disabilities. The employment of a set of principles for addressing the needs of all students may help to ensure transition programs are comprehensive with the result that a greater majority of the transitioning students will have their needs met. Universal Design for Learning potentially provides such principles and a structure to develop appropriate transition programs for all, regardless of the timing or location of the transition.

Middle Years Transition

The transition from primary to secondary school has been described by Pendergast (2017, cited in Pendergast, Main & Bahr, 2017) as "complex and multidimensional" (p. 98). The secondary school environment is vastly different to that of the primary school in countries such as Australia, USA and the UK. It is these differences that make the adjustment particularly difficult for some students, including those from diverse backgrounds or who have disabilities (Chambers & Coffey, 2013). Importantly, this change occurs during the years of puberty which also present physical, emotional, social and intellectual challenges for the young adolescent. Whilst some students transition to a new school with many of their primary school classmates, others do so alone. Some simply move to a different part of the same school campus whilst others travel vast distances, perhaps on public transport, to access the new school. Friendships formed during their primary school years may be disrupted as students move to different secondary schools. Thus, the experience of each student during the transition is quite different, and it is not surprising that of the issue's students worry about, making new friends and fitting in is of great concern (Coffey, Berlach & O'Neill,

2013). Every student, however, needs to manage the new environment of the secondary school.

Typically, the primary school campus is smaller and more compact than that of the secondary school. Students will generally have one teacher whom they know well and who they feel knows them. Parents will have had an opportunity to meet their child's teacher and may have relatively easy access to that teacher. By the time the students exit the primary school they are the oldest and are known by other students and teachers. They will generally have most of their lessons in one classroom and all of their equipment is conveniently located within that room. Having the same teacher for most of their lessons means that the students generally have a good understanding of the teacher's expectations and management of the classroom.

The features of a primary school are in sharp contrast to the typical secondary school environment. The phrase 'small fish in a big pond' is an apt one to describe the experience of the transitioning student. The secondary school campus is larger and more sprawling and hence the fear of getting lost is a typical concern for students (Coffey, Berlach & O'Neill, 2013). In some schools, students may have a particular area or 'block' designated for a year group. Such settings mean that students do not need to navigate the whole campus as frequently when they move from class to class. Movement is more restricted. In some settings the students may remain in the same room with teachers coming to them. Nevertheless, the more rigid timetable means that students bring the equipment that they need to each class. Students may have a locker in which to store their equipment. It is up to them to manage the locker and ensure they arrive to class correctly prepared. Venturing to the oval or canteen during school breaks can present many new hurdles. Here they must negotiate older and physically larger students. To alleviate this issue, some schools enable the younger students to access the canteen earlier and to have designated areas for recreation (Coffey, Berlach & O'Neill, 2013).

The decline in academic performance that may accompany students during the transition phase (Pendergast, Main & Bahr, 2017) may, in part, be due to some of the factors mentioned previously. Being organised for class is an issue with which many students struggle (Coffey, Berlach & O'Neill, 2013), however other factors are also at play. Whilst in primary school it has been noted that students often have one teacher for most subjects, in contrast, in secondary school students will generally have a different teacher for each subject. Each teacher will have a different set of expectations and pedagogical approaches. Classes typically run for a set time period, beyond an individual teacher's discretion, meaning that the

bell signifies the end of the lesson irrespective of whether students have completed the assigned tasks. Each teacher may independently on a given day, set homework for the students. Hence students can finish school facing the prospect of hours of homework which can understandably be overwhelming. Similarly, assignment tasks, set at an individual teacher's discretion, may also coincide with those of other teachers meaning that students will find many major tasks all due around the same time. Again, this can be the source of major difficulties for students in terms of their organisation and time management. Coupled with the feeling that their teachers do not know them means that some students will struggle to manage the more complex secondary classroom milieu. The need to become a more independent and self-managing learner can be a difficult aspect of the transition process.

Universal Design for Learning

The origins of the Universal Design for Learning (UDL) framework are generally attributed to the growth of Universal Design (UD) for architecture and consumer products beginning in the 1970's (Center for Universal Design, 1997). Universal Design requires that housing (and other products) are designed to be barrier-free and accessible for all people who may use the building, including people with a variety of different disabilities. It is often referred to as "the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design" (Center for Universal Design, 1997, para. 1). Examples of universally designed building structures and products include: single lever water controls, wide doorways, a step-less entry, and easy to use door handles. Ron Mace (1998), states that "universal design is nothing more than good user-sensitive design carried to the greatest extent possible" (p. 28).

The principles that underpin UD were devised by architects, product designers, engineers and environmental design researchers, and relate specifically to the ease of access to environments and products (Center for Universal Design, 1997). The principles consist of: 1) equitable use; 2) flexibility in use; 3) simple and intuitive Use; 4) perceptible information; 5) tolerance for error; 6) low physical effort; and, 7) size and space for approach and use. These principles work to remove physical access barriers to environments and products for everyone (universal).

Edyburn (2010), discusses the concept of Universal Design for Learning (UDL) and suggests that educators need to move forward from the initial focus on building design to concentrate on instructional design and applying the principles of UDL to curriculum and classrooms. The Center for Applied Special Technology [CAST] (2017) has developed

widely accepted principles for UDL. These principles include: a) multiple means of engagement; b) multiple means of representation; c) and multiple means of action and expression. Table 1 describes the developmental purpose and the elements that are incorporated in each principle of UDL. The principles are designed to ensure educators consider a wide variety of student needs in their teaching, and plan curriculum and educational experiences that allow for different modes of learning. The principles of UDL are targeted towards activating specific brain networks, as identified by neuroscience, such as the strategic network (how information is perceived and gathered), the recognition network (planning and performance), and the affective network (motivation and engagement to learn) (see CAST, 2017).

Table 1

Principles of UDL (CAST, 2017).

Multiple Means of...	To develop...	Provide options for...
Engagement	Purposeful, motivated learners	<ul style="list-style-type: none"> • self-regulation • sustaining effort and persistence • recruiting interest
Representation	Resourceful, knowledgeable learners	<ul style="list-style-type: none"> • comprehension • language, mathematical expressions, and symbols • perception
Action and Expression	Strategic, goal-directed learners	<ul style="list-style-type: none"> • executive functions • expression and communication • physical action

Zascavage and Winterman (2009), suggest that while UD addressed the physical access barriers for students with disabilities, it is UDL which addresses the cognitive barriers and leads to a paradigm shift for educators. UDL has a solid basis in neuroscience and research and often (but not always) utilises digital tools to ensure curriculum and learning environments are designed with options for all in mind, rather than having to be retrofitted at a later stage (Meyer, Rose & Gordon, 2014) to address individual needs. In addition to catering for the needs of all students in the classroom, UDL may be more cost-effective as it

does not require additional resources to be sourced during the teaching process (National Center for Universal Design for Learning, 2010).

All learners' needs can be addressed through the application of UDL principles in classroom planning, including, but not limited to those who have learning difficulties and disabilities (Hall, Cohen, Vue, & Ganley, 2015), students with intellectual and developmental disabilities (Coyne, Evans & Karger, 2017), students who have English as a second language (Rao & Torres, 2017), students who are deaf or hard of hearing (University of Vermont, 2017), students from different cultural backgrounds (Chita-Tegmark, Gravel, De Lourdes B. Serpa, Domingos & Rose, 2011; Pearson, 2015), and students who struggle with specific areas such as mathematics (Hunt & Andreasen, 2011). When applying the principles teachers provide multiple, flexible ways for students to comprehend and interrogate content, demonstrate skills and understanding, and be more fully engaged. UDL can be applied to all aspects of curriculum, including instruction, materials and assessment (National Center for Universal Design for Learning, 2010).

Application of UDL Principles to Middle Years Transition

The application of Universal Design for Learning principles have been addressed in many areas of the middle school, including in science classrooms (Marino, et al., 2014), for literacy tasks (Coyne, Evans & Karger, 2017), and for mathematics instruction (Hunt & Andreasen, 2011). There is, however, a paucity of research and discussion around how these principles may be applied to transition programs, particularly in the middle school. The authors feel that the use of UDL principles in the design of a middle school transition program would significantly benefit many students who struggle with adapting to a new context.

Multiple Means of Representation

Students perceive and understand information in different ways. Students with vision or hearing impairments, learning disabilities or cultural differences, for example, may require different ways to access content. Multiple ways of presenting the information also enhances transfer of learning (CAST, 2017). When developing a transition program, educators should consider options for the presentation of information (to both students and parents). In a middle school transition program, educators may include information about induction processes, assistance with managing increased demands for personal organisation, and monitoring progress in a variety of ways to ensure data is gathered from all participants.

Options should also be provided for language and mathematical expression, and in a transition program this may include providing information in a variety of formats on what to bring to school, opportunities for activities during unstructured time, and timely reminders on processes relevant to new students (i.e. learning management system operating in the school). In order to enhance comprehension of transition processes, the information should be presented in a variety of ways. This may include using a variety of presenters (i.e. older students to talk to younger students), providing visual cues within text, and using multi-modal formats for written and spoken content, such as the use of video.

Multiple Means of Action and Expression

Students may approach learning tasks differently or express understanding in a variety of ways according to their movement ability (i.e. students with cerebral palsy), organisational capability (i.e. executive function) and communication barriers (i.e. ESL). Providing many options for action and expression is essential (CAST, 2017). During transition phases, options for physical action, which may include opportunities for students to role play middle school situations, include parents and teachers in meetings about the transition process, and methods for monitoring progress, could be applied. Options for expression and communication ensure that educators provide appropriate modes of communication around induction days. Peer support programs and feedback can also support effective communication, particularly if developed with a range of communicative abilities in mind. When addressing difficulties with executive function, educators may include school visits to familiarise the students with the campus, school camps to form relationships and develop processes, and provide organisational support for all students to ensure they begin their middle school with the best possible preparation.

Multiple Means of Engagement

Engagement and motivation to learn (affect) can vary greatly between individuals. Influences on engagement and motivation include neurology, culture, personal relevance, subjectivity, and background knowledge (CAST, 2017). Some students may prefer novelty, while others may prefer routine tasks at all times. Some may prefer individual work, while others will prefer collaboration. Multiple ways to engage and motivate students should be used in order to provide for the variety of modes. When developing transition programs for middle school students, educators must consider options for recruiting interest that may include school visits, a range of options for structured and unstructured activities that appeal

to a wide range of participants, and evaluation of the program to identify continuing needs of the students. This evaluation should include student voice so that authentic practices can be utilised appropriately.

Options for sustaining effort and persistence amongst middle school students may consist of providing interactive sessions during induction days, providing planning tools for homework and monitoring progress effectively to rapidly identify and address issues before they escalate and impact on a students' self-efficacy. In addition to sustaining effort, options should be provided for students to self-regulate their behaviour and emotions. Introducing coping strategies and peer support programs are essential to support students to self-regulate. Opportunities to express their thoughts and feelings and reflect on their experiences is also useful.

Specific considerations for Middle School transition

Much is known about the specific issues that transitioning students face in the important months leading up to the move as well as during their initial weeks in secondary school (Parker & Neuharth-Pritchett, 2009). This knowledge can lead to a tendency, at every opportunity, to provide students with all the information that they will need, all at once. However, it is important to avoid information overload and to carefully consider what information and support is provided and when it should be available. The following description of supports provides some insight into the way the principles of UDL may be applied during the transition process. A table of the suggestions is provided in Appendix 1.

Pre- Transition

Activities conducted prior to transition have the purpose of providing students and their parents with information about their new school as well as to 'practice' some of the personal skills that will be required. The more students know about the environment to which they are moving the more their anxiety can be reduced (Coffey, Berlach & O'Neill, 2011). Students and parents can start planning for the move with a greater degree of confidence about what to expect. Varying the 'timetable' in their primary school to mimic what the students will experience in high school may provide the opportunity to practice what life might be like in secondary school. Requiring that students start to take more responsibility for organising themselves to bring the correct equipment to class might also help prepare students for what lays ahead. Seeking feedback (written, verbal, video diary)

from students and parents around their thoughts and feelings about the transition is important as this can help schools plan for the next stage of the transition process.

Multiple Means of Representation

Provision of information for students (and parents) in a form that they can understand is extremely important, including the use of plain English and additional languages if required (See Appendix 2). Careful consideration needs to be given to both the format – written and/or verbal – as well as the content of the information. Talks by other students (and parents) who have recently been through the transition process can provide a good opportunity for questions to be posed. Podcasts that can be accessed from the school website allow parents and students to access the information they require at their leisure. Social and more formal opportunities for direct interaction between older and younger students, new parents and ‘old parents’ can also be helpful.

Schools should not just rely on usual forms of communication such as newsletters and information sheets to disseminate information. Opportunities to share information in both formal (i.e. assembly) and informal (i.e. parent meetings) should be utilised. Thinking carefully about the format of any visits by transitioning students to their new school should countenance a variety of ways to engage students in the activities provided. How best can information be communicated to the students in an inclusive manner? Whilst some students respond well to information communicated verbally, others prefer information in a written format. For example, some students may prefer information about what to bring on their first day to be presented in a pictorial format rather than in words.

Multiple Means of Action and Expression

Induction days, generally held in the first few days of the new school year, are typically included in a school’s transition program (Galton & McLellan, 2018). These days provide a good opportunity for students to begin to get to know their new classmates but can also be very stressful. School tours should be arranged with ‘activities’ so that students can record (in a way that suits them) key features of the new campus. Simply walking around the campus or providing students with a map will not necessarily suffice for most students. Opportunities to engage with peer leaders is also important at this stage of transition.

Learning from students who have recently navigated the move from primary to secondary can be a valuable source of information for new students. Provision of cue cards for students to express anxiety or stress during the various activities conducted on induction

days can provide a useful way for teachers to learn about new students and triggers for anxiety. These cue cards can be used in a similar way to a traffic light system, with green being “I’m OK”, orange relating to “A little nervous”, and red indicting “I am not coping”. Careful thought about the information and how it will be relayed by older students and teachers on visits to primary schools is also necessary to avoid inadvertently portraying the difficulties students might experience as overwhelming challenges.

Multiple Means of Engagement

School campus tours/activities need to be arranged being mindful of the range of students who will be involved. These opportunities can be very beneficial for students to commence the formation of relationships with their peers and teachers. What type of activities will best achieve these ends? Should the activities be hands on or more formal lectures by teachers and students? A combination of both? Activities should be arranged with a very clear sense of their purpose. Where possible students might be given a range of different options from which they can select the one that best suits them rather than rotating through a set of activities in which all students are involved. These activities can be very important in the development of students taking responsibility and exercising choice (see Figure 1). Again, rather than the intent be focused solely on developing familiarity with the new campus and different subject areas, activities can introduce the opportunity for students to consider scenarios and the development of coping strategies that they may employ when they commence at their new school.

ACTIVITY CHOICE BOARD – Circle three (3) activities that you would like to do after lunch (1:30pm – 2:45pm)		
SPORT Soccer on the Oval	COOKING Easy pancakes	TECHNOLOGY Simple robots
MEDIA Apps for moviemaking	MATHS Games to make and use	DESIGN Plastic melding

SPORT	HISTORY	ART
Cheerleading in the Gym	Digging up the past - Archaeology	Creating a picture of you

Figure 1: Activity choices for pre-transition visits.

During Transition

Making new friends and fitting in are the prime concerns for students transitioning into secondary school (Coffey, Berlach & O’Neill, 2013; Pendergast, Main & Bahr, 2017; Pratt & George, 2005) so during transition students need to be provided with multiple opportunities to form relationships with their new peers (Coffey, 2013). Students also struggle with becoming more organised and self-directed (Coffey, Berlach & O’Neill, 2013; Elias, 2002). For example, they may not arrive on time with the right equipment to each class. Learning to manage homework and availing themselves of the opportunities to take part in extracurricular activities are also important considerations during transition as students settle into their new school develop feelings of belonging to their new environment.

Multiple Means of Representation

Providing students with options for recording their timetable and the equipment that they will need for each class is important. Some may prefer the use of visual cues or audio recordings, whilst others can use a written timetable. Teachers need to be very clear about the precise nature of the information that the students will require but students themselves need options in the way they record that information. Generally, the provision of a school diary will suit some, but not all, students. The use of digital devices including smartphones and electronic calendars can also facilitate the recording of important information (Hayes, et al., 2010). Templates for completing homework which allow for flexibility can assist students to become more organised. If lockers are provided students may need guidance in terms of access and the organisation of the contents within the locker. The provision of multi-media resources, such as apps or websites, providing information on coping with the various requirements of transition should be considered. These resources can be accessed both formally, under the direction of teachers and parents, or informally by the students.

Multiple Means of Action and Expression

Students should be presented with a variety of opportunities to get to know each other. Whilst some students prefer formal organised events others may prefer more informal options. Large scale events might be overwhelming for some students, particularly those with Autism Spectrum Disorders or social phobia (Jindal-Snape, Douglas, Topping, Kerr & Smith, 2006). Peer support leaders can be a valuable source of support for the new students, as they can be an informal point of contact for the new student. Careful selection of the peer support leaders is crucial. Training programs for peer support leaders (typically year 11/12 students) need to embed the principles of UDL so that the leaders are aware that their younger counterparts may prefer different ways of communication than they do and have different needs for participation in the peer support program. Peer support leaders need to be acutely aware of the different challenges and anxieties that typically confront transitioning students, particularly if they did not share these anxieties or have moved on from them. Keeping a written journal or photo diary of their experiences and opportunities to share these experiences can be a way of helping students settle into their new school. It can be a source of comfort for students to know that they have similar concerns to other classmates.

Multiple Means of Engagement

Conducting a camp for the new cohort of students is quite a common feature of transition programs (Coffey, Berlach & O'Neill, 2013). Careful thought needs to be given to the program of activities to ensure that they cater for the broad range of participants. For example, sporting activities will not appeal to all. The opportunity for students to exercise choice is important. Student feedback about the various events conducted during transition, collected in a variety of formats (online surveys, group discussion, individual interview) ensures that the voice of every student can be considered. Extracurricular activities should cater for differing ability and interest levels.

Accessing the canteen is an exciting aspect of a secondary school. Students are frequently presented with a broader range of food and drink options and also need to contend with many more students who are generally physically much larger. Providing information about menu and use of the canteen in several formats can assist in alleviating stress. Students also require support in their use of unstructured time (recess/lunch) Provision of a menu of options to prompt students may be of assistance (see Figure 2).

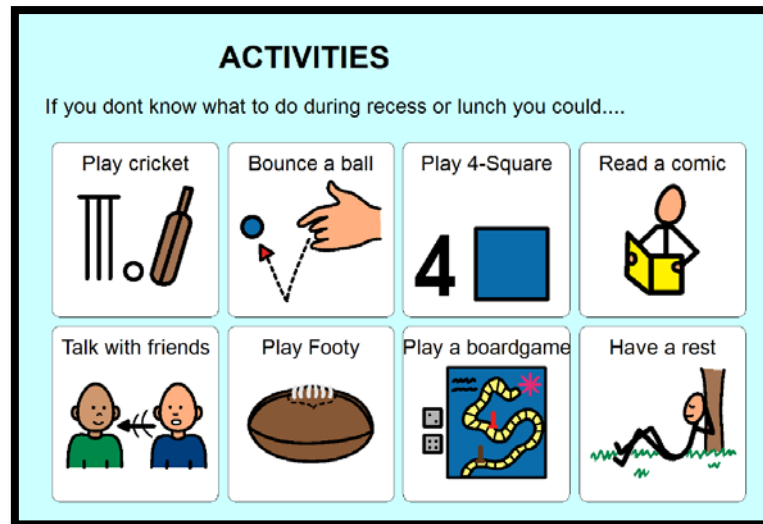


Figure 2: Pictorial activity card for recess and lunchtime for a student who has a cognitive impairment (The Picture Communication Symbols ©1981–2018 by Tobii Dynavox LLC. All Rights Reserved Worldwide. Used with permission).

Post -Transition

Even after the traditional transition period has ended (often considered to be the first term of school), students may still require support within the secondary context. While this is often the stage where support is reduced for the students, there will be some, particularly those with learning difficulties and disabilities who may not have fully grasped the requirements of the high school environment. Occasionally too, the social demands may only become an issue at this stage in the student’s schooling, as they are expected to take on more responsibility for their own organisation and socialisation. Therefore, schools need to provide some ongoing, continual supports well into the students’ first year at high school.

Multiple Means of Representation

After every set of school holidays, students may need to be eased back into the flow of the school. It is not uncommon for students to forget routines that were in place (Martineau, 2013). Reminders about school rules, and modes of interaction amongst students and staff may need to be provided in a variety of formats, such as written, pictorial or even via video. At this phase a video or written information for parents on how to use the school’s specific learning management system (i.e. Coneqt, Seqta) will be a valuable resource. Providing support for assistive technology, such as voice output devices, and multi-media teaching in the classroom will provide ways for all students to access the content of the

lessons. This support may take the form of training for the teachers and parents, as well as for the student using the technology. Parent/teacher meetings will help to ensure that both parties are working towards achieving equitable outcomes for the student and address any issues early in the student's high school career, and that there are no unattended to issues that the parent is not aware of. Parents, in general, are keen to learn how their child is settling into their school and how they might assist in this process.

Multiple Means of Action and Expression

Providing a variety of ways for students to indicate their progress at school will assist the school to identify those students who are struggling with the content or the social demands made upon them and address these needs appropriately. Students can provide information verbally, using visual cues, on a voice output device and individually or in small groups. Mastery checklists which are freely available online may be used to assist the students and parents to feedback information about the students' progress. To assist with organisation post-transition, an organisational grid can be provided to assist the students to organise their class requirements, breaks and homework time, either independently, or with assistance from the teachers and/or parents.

Multiple Means of Engagement

Overall feedback and evaluation in relation to the transition program should be sought from all stakeholders in a variety of ways. The school may hold brainstorming sessions with the middle school staff during a meeting, or parents could be interviewed in small groups. If there are a wide variety of languages spoken in the school, an online survey available in these languages may be beneficial. In addition to monitoring their progress, seeking feedback from the students on the transition program itself would be useful for the school to refine the program further. There are many different ways that this could be achieved including using visual cues, video, interviews, individual written or spoken responses and through the medium of assistive technology.

Conclusions and Future Directions

As has been described, the principles of Universal Design for Learning provide a useful lens through which to examine transition programs to ensure that they can be accessed by the wide variety of students located in primary and secondary school settings. The range of students varies for each school and between countries, and where one school may have a

large enrolment of students with a first language other than English, another school may have many students with disabilities and learning issues. In order to ensure that all students have the benefit of a comprehensive transition program which will make them feel part of the school community, these diversities must be considered, which can be done so by applying UDL principles in the individual context.

Smooth transition into secondary school can, in part, ensure that students have a solid foundation from which they can progress to the later years of secondary schooling. The middle years of schooling are a critical time for all young adolescents as they negotiate the challenges of moving schools at a time when they are developing into adulthood. Whilst the challenges that students experience before, during and after transition are often similar, the ways in which students best confront and overcome these challenges are many and varied. A 'one size fits all' approach to transition program planning is unlikely to ensure that the needs of all students can be met. The principles of UDL provide school personnel with a useful set of principles from which to plan an inclusive transition program. At present, there is little research into the implementation and evaluation of transition programs based on UDL principles. It is recommended that consideration be given to conducting research to establish an evidence-base for the usefulness, or otherwise, of UDL as a guiding set of principles underpinning the design of transition programs.

References

- Ashton, R. (2008). Improving the transfer to secondary school: How every child's voice can matter. *Support for Learning*, 23(4), 176–182. doi:10.1111/j.1467-9604.2008.00391.x
- Center for Applied Special Technology [CAST] (2017). Universal design for learning. Retrieved from <http://www.cast.org/>.
- Center for Universal Design. (1997). *The principles of universal design*. Retrieved from https://projects.ncsu.edu/ncsu/design/cud/about_ud/udprinciplestext.htm.
- Chambers, D., & Coffey, A. (2013). Development of a mobile-optimised website to support students with special needs transitioning from primary to secondary settings. *Australasian Journal of Special Education*, 37(1), 79-91.
- Chita-Tegmark, M., Gravel, J. W., De Lourdes B. Serpa, M., Domings, Y., & Rose, D. H. (2011). Using the universal design for learning framework to support culturally diverse learners. *Journal of Education*, 192(1), 17-22.
- Coffey, A. (2013). Relationships: The key to successful transition from primary to secondary school? *Improving Schools*, 16 (3), 261-271.
- Coffey, A., Berlach, R.G., & O'Neill, M. (2011). Transitioning year 7 primary students to secondary settings in Western Australian Catholic schools: A description of the process. *Journal of Catholic School Studies*, 83(2), 6-17.
- Coffey, A., Berlach, R. G., & O'Neill, M. (2013). Transitioning Year 7 primary students to secondary settings in Western Australian Catholic Schools: How successful was the move? *Research in Middle Level Education Online (RMLE Online)*, 36 (10), 1-15.
- Coyne, P., Evans, M., & Karger, J. (2017). Use of a UDL literacy environment by middle school students with intellectual and developmental disabilities. *Intellectual and Developmental Disabilities*, 55(1), 4-14.
- Deacy, E., Jennings, F., & O'Halloran, A. (2015). Transition of students with autistic spectrum disorders from primary to post-primary school: A framework for success. *Support for Learning*, 30(4), 292-304.
- Elias, M.J. (2002). Transitioning to middle school. *The Education Digest*, 67(8), 41-43.
- Edyburn, D. (2010). Would you recognize universal design for learning if you saw it? Ten propositions for new directions for the second decade of UDL. *Learning Disability Quarterly*, 33(1), 33-41.
- Galton, M., & McLellan, R. (2018) A transition odyssey: Pupils' experiences of transfer to secondary school across five decades, *Research Papers in Education*, 33(2), 255-277, DOI: 10.1080/02671522.2017.1302496

- Hall, T. E., Cohen, N., Vue, G., & Ganley, P. (2015). Addressing learning disabilities with udl and technology. *Learning Disability Quarterly*, 38(2), 72 – 83. Doi: 10.1177/0731948714544375
- Hayes, G. R., Hirano, S., Marcu, G., Monibi, M., Nguyen, D. H., & Yeganyan, M. (2010). Interactive visual supports for children with autism. *Personal and Ubiquitous Computing*, 14, 663-680. Doi: 10.1007/s00779-010-0294-8.
- Hunt, J. H., & Andreasen, J. B. (2011). Making the most of universal design for learning. *Mathematics Teaching in the Middle School*, 17(3), 166-172.
- Jindal-Snape, D., Douglas, W., Topping, K. J., Kerr, C., & Smith, E. F. (2006). Autistic spectrum disorders and primary-secondary transition. *International Journal of Special Education*, 21(2), 18-31.
- Mace, R. L. (1998). Universal design in housing. *Assistive Technology*, 10(1), 21-28. DOI: 10.1080/10400435.1998.10131957.
- Marino, M. T., Gotch, C. M., Israel, M., Vasquez III, E., Basham, J. D., & Becht, K. (2014). UDL in the middle school science classroom: Can video games and alternative text heighten engagement and learning for students with learning disabilities? *Learning Disabilities Quarterly*, 37(2) 87–99.
- Martineau, P. (2013). How to focus students on school after summer break. *The Education Digest*, 79(1), 4 - 9.
- Meyer, A., Rose, D.H., & Gordon, D. (2014). *Universal design for learning: Theory and practice*. Wakefield MA: CAST
- National Center on Universal Design for Learning (2010). *National UDL taskforce*. Retrieved from <https://www.slideshare.net/NCUDL/national-udl-taskforce>
- Parker, A. K., & Neuharth-Pritchett, S. (2009). Calming rough waters: Teacher strategies for smoothing the transition to middle school. *Childhood Education*, 86(1), 20-26, DOI: 10.1080/00094056.2009.10523103
- Pearson, M. (2015). Modeling universal design for learning techniques to support multicultural education for pre-service secondary educators. *Multicultural Education*, 22(3-4), 27-34.
- Pendergast, D., Main, K., & Bahr, N. (2017). *Teaching middle years: Rethinking curriculum, pedagogy and assessment* (3rd ed.). Crow's Nest, NSW: Allen & Unwin.
- Pratt, S., & George, R. (2005). Transferring friendship: Girls' and boys' friendships in the transition from primary to secondary school. *Children and Society*, 19, 16-26. Doi: 10.1002/CHI.830

Rao, K., & Torres, C. (2017). Supporting academic and affective learning processes for English language learners with universal design for learning. *TESOL Quarterly*, *51*(2), 460-472.

University of Vermont. (2017). *Universal design for learning: How to work with deaf and hard of hearing students*. Retrieved from <https://www.uvm.edu/~cdci/universaldesign/?Page=teaching-accommodations/deaf.php&SM=teaching-accommodations/submenu.html>.

Zascavage, V., & Winterman, K. G. (2009). What middle school educators should know about assistive technology and universal design for learning. *Middle School Journal*, *40*(4), 46-52. DOI: 10.1080/00940771.2009.11461681.

Appendix 1
Guidelines for Transition to Middle School using UDL Principles

	Multiple Means of Representation	Multiple Means of Action and Expression	Multiple Means of Engagement
Pre-Transition	<ul style="list-style-type: none"> • Mimic “high school” timetable during term 4 • Induction days – information in a variety of modes (verbal and written, languages of the school) • Communication – what to bring on first day/week – visual /pictorial support as well as written/verbal 	<ul style="list-style-type: none"> • Older students visit the primary school and use role play with year 6 students. • Induction – provide cues cards to indicate levels of stress and anxiety • Goal setting (multiple formats and platforms) • Tours to record key features of the new school setting. 	<ul style="list-style-type: none"> • School visits – choice of activities (i.e. using iPads to sign up) • People Bingo to introduce each other during induction days • Introduce scenarios and coping strategies prior to transition (role play/video)
During Transition	<ul style="list-style-type: none"> • Options for developing a timetable • Guidance for organisation of materials for each class – colour coding • Guide to expected locker contents and access (visual/written) • Use of multi-media/technology to provide resources on coping with the transition • Goal setting for the first term in the new school 	<ul style="list-style-type: none"> • Flexible templates for completing homework • Self-select from a variety of peer support programs (cultural/ability/interest) • Build peer connections through peer support programs – training programs for support leaders • Journal or photo diary of experiences • Website to connect with peers (safely) and to house FAQs and tips • Use of assistive technology to provide responses 	<ul style="list-style-type: none"> • Student feedback in a variety of formats – online surveys, group discussion • Extra-curricular activities available for all ability levels • Support use of unstructured time (recess/lunch) – provide a menu of options

Post-Transition

- Reminders after holidays (written/verbal/pictorial/video)
- Parent/teacher meetings
- Video on learning management system
- Ongoing assistive technology support/training

- Monitor progress to determine struggling students
- Mastery Checklists to indicate skills learnt/not learnt
- Provide an organisational grid to be completed by the student in a format appropriate for them (computer/audio recorded/written/pictorial)

- Feedback /evaluation of transition program by all stakeholders (brainstorming/parent meeting/survey in multiple languages)
- Multiple opportunities for students to express and reflect on how they are progressing (video/visual cues/photobooth/role play/group interviews/individual responses/assistive technology)

Appendix 2

Example Letter to Parents

English

Dear Parents/Caregivers

Welcome to the 2017 school year and to Notre Dame High School. We would like to inform you of the Induction Day on the first day of school. On Induction Day students will be using the swimming pool, gymnasium, classrooms and oval on the campus to participate in a range of team building activities. The day provides the opportunity for students and teachers to develop strong relationships and group identity.

Students are required to arrive to school at 08:20am in their Physical Education uniform and will then walk to the oval, accompanied by their home room teachers and support staff. Students will need to bring drinks, hats, sunscreen, and appropriate footwear. Students must bring their own lunch from home as they will not have access to the cafeteria on site. Dismissal will be at the usual time of 3:10pm.

The Year 7 learning community team of staff are looking forward to getting to know the students better on this educational and fun day.

Regards,

Head of Year 7.

Chinese

亲爱的家长/看护人

欢迎来到2017学年和圣母高中。我们想在学校的第一天通知你入学日。入学日学生将在校园内使用游泳池，体育馆，教室和椭圆形，参与一系列团队建设活动。这一天为学生和老师提供了发展牢固关系和团体认同的机会。

上午08时20分，学生必须上学，学生将需要携带饮料，帽子，防晒霜和适当的鞋类。学生必须在家中自己回家，因为他们不能进入现场的自助餐厅。解雇希望在下午3点10分通常的时间。

七年级学习社区是世界上最重要的人物之一。

问候，

7年级负责人

Somali

Waalidiinta Qaaliga ah / Daryeelayaasha

Ku soo dhawow sannadka 2017 iyo Notre Dame High School. Waxaan jeclaan lahayn inaan ku ogeysiinno Maalinta Induction ee maalinta dugsi ugu horeysa. Maalinta Induction Day ardaydu waxay isticmaali doonaan barkadda dabaasha, qolka jimicsiga, fasalka iyo ovalaha xaafada si ay uga qaybqaataan nashaadyada kala duwan ee teambuilding. Maalinta waxay fursad u siinaysaa ardayda iyo macallimiinta in ay yeeshaan xiriir adag iyo aqoonsi kooxeed.

Ardayda waxaa looga baahan yahay inay iskuulka yimaadaan 08:20 subaxnimo ee waxbarashada jimicsiga. Ardaydu waxay u baahan doonaan inay keenaan cabitaan, koofiyado, muraayad qorrax leh, iyo kabo ku haboon. Ardaydu waa inay gurigooda ka soo qaataan maadaama ayan haysan karin makhaayadda goobta. Dammaanadda waxay rabtaa in ay ahaato wakhti caadi ah 3:10 galabnimo.

Bulshada barashada sanadka 7 waa mid ka mid ah dadka ugu muhiimsan adduunka.

Salaan,

Madaxa Sannadka 7aad.