

Inclusion-evidence based strategies

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Inclusion is a term which expresses commitment to educate each child, to the maximum extent appropriate in the school and classroom. It involves bringing the support services to help and assist the child (rather than shifting the child to the services) and requires only that the child will benefit from being in the class (rather than having to keep up with the other students). Proponents of inclusion generally favour newer forms of imparting education. Full inclusion means all students regardless of handicapping condition or severity will be in a regular classroom/program for whole time. All services must be taken to the child in that setting. Inclusive education has been internationally recognized as a philosophy for attaining equity, justice and quality education for all children especially those who have been traditionally excluded from mainstream education for reasons of disability, ethnicity, gender or other characteristics. Inclusive education is defined by UNESCO as a process of addressing and responding to the diverse needs of all learners by increasing participation in learning and reducing exclusion within and from educational. This means that all children have the right to a quality education that caters to the extent possible to their individual needs. Some countries have been successful in promoting inclusive education practices and policies that remove barriers and create conditions which enable all children to learn. However in poorer developing inclusive countries the process of creating an inclusive system is more difficult. Factors such as lack of available funding, administrative and policy level support, trained personnel and evidence based strategies pose challenges that can slow down progress. In the previous part of this paper author discussed about what is meant by evidence based strategies. In the present paper an attempt has been made to discuss about such evidence based practices and strategies in detail.

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An inclusive pedagogical approach focuses on all students in the classroom not only the student or students who have been identified as requiring additional educational support. In this way emphasis remains on what all learners need to know and the skills they need to demonstrate their learning. Specifically, Rouse and Florian (2012) defined 'inclusive pedagogy' as "an approach to teaching and learning that represents a shift in thinking about teaching and learning from that which works for most learners along with something 'different or additional' for those who experience difficulties to an approach to teaching and learning that involves the creation of a rich learning environment characterized by lessons and learning opportunities that are sufficiently made available to everyone so that all are able to participate in classroom life" (p. 18). Additionally, Schaeffer (2008) suggested that a rights-based framework for inclusive pedagogy is necessary to achieve a truly inclusive system of education. This approach advocates interrelated dimensions that work together to ensure that the right to education is granted to everyone without discrimination; learners' rights are respected within their learning environments and access assured through appropriate curricula, materials and methodologies and democratic values and respect for human rights are promoted. Further, Goss, Hunter, Romanes, and Parsonage (2015) in their recent report, Targeted Teaching, endorse a strong focus on learning outcomes through teacher collection of rigorous data and the use of this data to both target teaching and track student progress over time. This focus is supported by Hattie's (2009) meta-analysis of the effect size of a variety of teaching interventions. Out of the 49 teaching strategies identified in the research, Hattie ranked formative

evaluation as having the highest positive impact on learning for all students. Formative evaluation is described as the use of student learning data by teachers to understand and analyze the effect of their teaching strategies and the impact they are having in class. In their report, Goss et al. (2015) suggested that school leaders should provide teachers with the time tools and the professional learning needed to track progress of students and embed targeted teaching into their practice. They propose that targeted teaching will result in teachers taking responsibility for lifting the performance of all students - those who are falling behind - as well as students who are performing beyond their level of expectations. These authors also advocate shifting focus from a year level comparisons to how much progress each student has actually made during the course of a school year. The work of Hattie (2009); and Goss et al. (2015); is important in describing an effective general orientation to inclusive practices, as is the article by O'Neill and Carter (2012) who reiterate the importance of evidence-based practice. Funding in the US is tied to teachers finding, appraising and using valid research as a basis for their teaching decisions.

Evidence-based practice, as an approach, began as evidence-based medicine and has spread to other fields such as education. Bourke and Loveridge (2013) note that in education some models of evidence-based practice include: Teacher preparation for inclusive education: Initial teacher education and in-service learning, the collection and analysis of multiple sources of evidence, including current research evidence; teachers' professional judgement and collaboration with a team around the learner. If teachers are engaging in responsive teaching cycles informed by research, assessing student need, responding by targeting teaching to their identified student need, monitoring the responses of students to their teaching, reflecting on student responses and then planning future teaching actions based on this information then they are engaging in what

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could be termed 'evidence-based practice'.

There are a number of terms used to describe this kind of teaching cycle where the focus is on assessment and the continuous monitoring of learning to inform teaching. These terms include action research, responsive teaching, clinical teaching or differentiated instruction. The complexity involved in instructing a range of learners with a variety of experiences, backgrounds, skills and abilities poses challenges for teachers. The necessity of catering for individual differences in inclusive classrooms has resulted in the development of pedagogical practices that aim to ensure that all students including those with disabilities or difficulties benefit from the learning environment (van Kraayenoord, Waterworth, & Brady, 2014). For example, Universal Design for Learning (UDL) is a framework designed to extend access to educational environments. Differentiated instruction is another means of meeting the needs of a range of learners through making adaptations and modifications to the curriculum. Both UDL and differentiated instruction models advocate a single curriculum that is, as far as possible, accessible to all learners given the judicious use of modifications or adaptations. Scaffolding and Response to Intervention (RTI) are other key approaches to classroom inclusion. Promoting positive behaviour (Positive Behaviour Support (PBS) is also evidenced in supportive inclusive classrooms. Brief review summaries of some effective recommended inclusive practices are presented below:

Task analysis

In task analysis, the task to be learnt by the child is broken up into small teachable components. The components are sequenced and each component is transacted to the child. The next component to be taught is taken up only after the child masters the initial ones. Children with special need cover a large range of disabilities. For each child the basal level and the profile have to be assessed and accordingly considering his pace of learning the task is to be broken down. Various activities of daily living as well as academic activities can be taught through this method.

Team teaching

Team teaching is an approach in which two or more teachers join together, plan together, teach together and evaluate together. As an educator, it is essential to work out in the depth that therapists and doctors give their inputs and how they can be related to education and behaviour of the child in school. In inclusive schools the regular education teacher and the special education teacher also work together in providing service to children with special need in the classroom. In inclusive education, meeting the special educational needs of children is the joint responsibility of the regular teacher, the special teacher and other professionals.

Peer tutoring

Peer tutoring involves one-to-one instruction from a student to another in the tutoring role and the tutee who receives instruction. Peer tutoring meets the individual needs of the child with disabilities by providing remedial or supportive instruction. Steps involved in peer tutoring are as given below: Make an assessment of pupil's performance in the class. Prepare a profile of tutee's performance in all areas of development. Identify the strengths of the pupils in the class to select peer tutors.

Match the tutor and the tutee. The tutor should be good in the subject and should have the skills to transact what the challenged

tutee has to learn.

Developing adapted instructional material in advance for use by the peer tutor and tutee, e.g. communication board may be prepared for a child with cerebral palsy with communication problems.

Organization of short training for tutors to carry out tutoring effectively for children with special needs.

Cooperative learning

Cooperative Learning is a strategy used by group/number of students to achieve a common goal with mutual collaboration and support. In an inclusive classroom where a large number of children with and without disabilities have been enrolled, children can be taught with the help of cooperative learning in which they have common goals. If a child with special need is to be taught he/she should be placed with the children who have the sensitivity and skills to deal with them. All students in the class may have to be oriented and prepared to work with challenged children. They need to be told about the difficulties the child faces and in what ways they can be of help. Grouping should be such that they help each other learn, they work together to seek solutions to problems and to complete an assignment. It is opposed to the existing system of education in the regular classroom where children are forced to compete against one another; the educational system encourages children to learn cooperatively through joint ventures. It is particularly suited to children with special need as they may feel insecure in a competitive setting. Children having locomotor disability, learning disability and emotional disturbances often lack the opportunity for social interaction. They need to develop the skills necessary for positive peer interaction. Cooperative learning provide opportunities to children with special needs as they would take turns, ask questions, seek assistance, answer questions, offer suggestions, learn and display good manners, speak positively about others and correct others.

The teacher would operate only as a

- Planner
- Facilitator
- Evaluator and
- Monitor

After the instructional objectives are laid, the students are grouped and assigned roles of leader, actor, recorder, evaluator, etc. The support material to carry out the task is also rotated. The activity must be conducted in such a way that each child has to take responsibility for his own learning. Thus, individual accountability is ensured. The teacher has to ensure intergroup interaction without which cooperative learning is meaningless. Monitoring should be done by the teachers in terms of level of mastery, completion of task, quality and quantity of work done, peer interaction and collaboration and satisfaction of the group as a whole. Grouping of children with special need should be done in such a way that the work goes on smoothly in the group. It benefits not only children with special educational needs but also all other children. It promotes academic achievement, develop problem-solving skills, leadership skills and pro-social skills; increases motivation, understanding, retention and transfer of learning to varied situations. It provides opportunity for peer interaction and social integration of children with disabilities. It also sensitizes and orients all children in the class as they know about the potentialities of many children with special need who may give a different appearance. However, teacher should monitor closely the

materials and the way they are used and the activities conducted in the class. In this approach children learn to share things instead of developing an unhealthy competition. Cooperative learning provides opportunities to all children to participate and contribute.

Differentiated instruction

Differentiated Instruction (e.g., Tomlinson, 2013) entails establishing clear goals, assessing persistently to see where each student's progress tracks relative to these goals and adjusting instruction based on assessment information. In her early work, Tomlinson (2001) stated that differentiated instruction "means 'shaking up' what goes on in the classroom so that students have multiple options for taking in information, making sense of ideas and expressing what they learn". According to Tomlinson, differentiated instruction is a careful combination of individual, group and whole-class instruction that is proactive, student centred and grounded in assessment. Once information on student need and ability is ascertained, teachers can differentiate their instruction in at least four main ways through addressing:

- Content the skills covered in the curriculum.
- Process the activities or strategies presented to students.
- Product the ways students demonstrate learning and,
- The learning environment the physical setup and social aspects of the classroom.

Although there has been much written about differentiation and ways to implement it in classrooms, it seems that teachers remain somewhat unsure about or reluctant to use these strategies. Research that has examined what happens in classrooms, either through self-report questionnaires or observational studies, confirmed that the most commonly used differentiation strategies tend to be those that do not require prior planning but instead are instigated as on-the-spot differentiation within the flow of a general whole-class lesson for example, repeating or simplifying instructions, providing extra support or giving specific guidance to some students (Buli-Holmberg, Nilsen, & Skogen, 2014; Chan et al., 2012; Yuen).

Universal design for learning

Universal Design for Learning is a framework for improving and optimizing teaching and learning for all students based on insights into how humans learn. As van Kraayenoord et al. (2014) stated the Teacher preparation for inclusive education: Initial teacher education and in-service learning. The three main principles of UDL emphasize the responsive use of representation, expression and engagement, such that:

- Multiple means of representation provide options for perception, language and symbols and comprehension ways of acquiring information;
- Multiple means of expression provide options for physical action, expressive skills and fluency and executive functions ways of presenting and demonstrating mastery; and
- Multiple means of engagement provide options for recruiting interest, effort and persistence and self-regulation offering different levels of activity and engagement.

Mitchell (2015) suggested UDL as a means of reaching a range of learners in New Zealand classrooms however Bryant's (2014) review of universal design studies in education rated the research base supporting the framework as in its early stages. It has been found that "barrier to establishing efficacy has been the lack of clear

definition of what constitutes an intervention that is universally designed" (p.154). Kavita et al. (2014) questioned the number of elements of UDL that need to be in place for an intervention to be considered 'universally designed'. With caution, however, it was concluded that there is some empirical evidence to support the use of UDL as a means of improving student outcomes. In Australia, van Kraayenoord, Waterworth, and Brady (2014) described the Planning for All Learners (PAL) intervention program which combines the principles of UDL with the use of assistive technology. These researchers report the success of PAL in two independent Queensland schools with particular reference to the progress of identified students in each class who presented with learning difficulties. Teachers were assisted in their professional learning journey through training and ongoing support from the PAL professional learning team. While the PAL program was conducted over a year, the program was active in classes for only two or three terms. Kraayenoord et al. (2014) acknowledged that growth and sustained change could take longer than this period and have recommended a longer-term commitment to the development of teachers' knowledge and skills and ensuring positive change.

Scaffolding

Scaffolding refers to instructional support given during the learning process and gradually withdrawn when it is no longer needed. Inclusive teachers provide these successive levels of temporary support to help students reach higher levels of comprehension and skill acquisition than they would have been able to achieve without assistance. Graham, Berman, and Bellert (2015) articulate the steps of scaffolding learning for teachers as:

- Before teaching, plan how you will support student learning.
- Know your learners: what do they know now and what do they need to learn next? A pre-test can provide useful information.
- Instructional clarity is key: what do the students need to do before, during and after the task?
- Anticipate errors and develop a procedure for error correction.
- Develop a routine to acknowledge progress and effort.
- How will you tap into prior learning and make connections with students' experiences?
- How will you communicate to students that they can learn this task, procedure or concept?

Response to intervention (RTI)

An influential model that can also be used to guide intervention planning and resource allocation in inclusive classrooms is Response to Intervention (also referred as Response to Instruction). Response to Intervention (RTI) is an approach that advocates systematic attention to both early identification of emerging learning delays through screening and classroom assessment and early intervention using planned and evidence-based approaches (McAlenney & McCabe, 2012; Gersten et al., 2009). It combines screening and high-quality instruction for every student with regular monitoring and assessment to identify learning and/or behaviour difficulties as soon as they emerge and timely effective intervention to prevent students from falling behind (Fuchs & Fuchs, 2006).

Research on implementation of RTI in the United States has indicated evidence of growth in student performance, increased task completion and reduction in special educational referrals (Glover & Di Perna, 2007). Response to intervention has been influential in

recent decades, particularly as it applies to identifying low-achieving students soon after learning delays or problems emerge. RTI means providing students with timely, appropriate intervention (Fuchs & Fuchs, 2006). In Australia, RTI is relevant as a framework for the systematic planning of curriculum-based assessment, monitoring and appropriate intervention (Graham & Bailey, 2007). It is included in this review of key inclusive practices because of its emphasis on quality initial teaching experiences and its potential to inform a responsive, systematic, data-driven approach to the planning and provision of appropriate support for all students.

Positive behaviour support (PBS)

Positive Behaviour Support (PBS) is also provided through a school-wide tiered framework of support. Scott, Park and Swain-Bradway (2007) describe a four-step implementation model for PBS as focussing on:

Staff being involved in predicting problems and being prepared to deal with them when they arise.

Developing rules, routines and arrangements to prevent problems in specific contexts.

Consistent implementation of strategies, rules and routines in classrooms and schools; and

Collection of data to evaluate the appropriateness of strategies and subsequent planning based on information collected.

In order for Positive Behaviour Support to be effective, teachers work collaboratively to provide consistent approaches to behaviour management in their schools. School-wide behavioural expectations are established and communicated. Professional learning around behaviour management and the PBS framework is also fundamental. For example, Richards, Aguilera, Murakami, and Weiland (2014) found that leadership and a high level of commitment from all stakeholders is needed to support the kind of fair and equitable practices that improve school climate and the academic attainment of students. School principals are key leaders who influence the shifts in practice. The aim is a shift from focusing on changing the behaviour of a few students to the provision of support to all students in inclusive settings. Leadership and collaboration are required for the introduction and successful implementation of programs such as PBS. Without the support of leadership and a consistent approach, behavioural and academic interventions are unlikely to be implemented rigorously nor will they be maintained in schools.

Conclusion

Inclusive teaching practices are varied. The selection of particular strategies or practices depends on teachers' dispositions and their attitudes towards and understanding of inclusion; their knowledge of strategies or practices such as team teaching, cooperative learning, peer tutoring, differentiated instruction, UDL, scaffolding, response to intervention and positive behaviour support and their

skill at applying these strategies and practices in response to students' needs. Effective strategies can bridge the gap between what schools were doing and what they can do better to make inclusion part and parcel of a general education program.

Knowing students; knowing content; planning and implementing teaching strategies; the learning environment; feedback and reporting; professional learning; engaging with others; self-efficacy and co-teaching and professional skills are in an aligned way the steps that can be suggested in nutshell in relation to theory and practice for inclusive education.

Suggestions

To make inclusion successful:

- Develop clear definitions of inclusion and related terms and use them consistently.
- Incorporate contemporary perspectives on inclusion which emphasize valuing diversity.
- Encourage positive teacher attitudes towards inclusive education.
- Nurture core competencies for inclusive teaching.
- Focus and report on student progress throughout the school year.
- Foster teacher collaboration and professional learning communities.
- Support teachers in their efforts to make accommodations, adjustments and modifications to a curriculum that is, as far as possible, accessible to all learners.

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