

Special Learners:

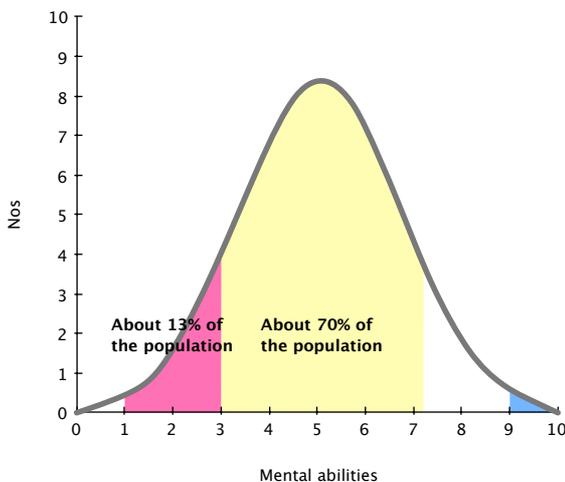
Psychological Theory behind Special Needs Learners

Very briefly, this is the topic that is normally titled something like '*Special Needs & Gifted Education Programmes*'; but in reality the approaches that we talk about here are really relevant to even the most average teaching/learning context because 'there's always one'!

Special needs is today's convention for what used to be termed *children with challenges* and before that *handicapped children*. The reason for this apparently fast change in nomenclature is because of the values associated with these terms that build up over time. Today it would be considered negative, or even offensive, to refer to a child as 'handicapped'.

One thing that special needs does acknowledge is that there are children who are performing at the very high performance end of an ability who also have unusual and therefore 'special' needs, as they may find that they are just as disadvantaged to not be learning at an appropriate level relevant to their specific needs.

What does it mean to be 'abnormal'?



In class we discussed what it meant to be 'abnormal' or have special needs. Definitions from the various groups included:

- Learning disabilities, either through mental or physical issues.
- Emotional issues with children (perhaps unusual situations at home).
- Highly active children ("ants in their pants").
- Related to the above, having a narrow attention span, either by not being able to concentrate for a long period of time, or because their perceptual field was reduced (eg. they are partially deaf).
- Children that are misbehaving.

Being 'abnormal' is also a value laden word, ie it normally is meant to indicate that a person is 'weird' and most people assume that it is a bad thing to be 'abnormal'. However, the original meaning of the word means 'away from the norm'. The 'norm' in this instance means what the majority of people do.

If we go back to our old friend (or is it a foe?) the normal distribution curve of abilities, the norm is the central chunk of people who fall around the middle scores (the top of the 'bell' in the bell curve).

So either very low scoring ability (pink) or high scoring ability (blue) is 'away' from the norm (yellow). In terms of mental ability, the 'pink' area would reflect the slow learners in a class, and the blue area would reflect the very bright pupils in a class. The problem lies in where should the 'cut-off' point be in deciding what is the 'norm'.

Historical names for special needs

For the most part, these naming conventions were focussed entirely on the low achieving end of mental abilities. [They](#) normally were used for IQ scores of 70 and below. Such as:

- Borderline deficient, IQ= 70-80
- Moron, IQ = 50-70
- Imbecile, IQ = 20-50
- Idiot, IQ < 20

See also [here](#).

Abnormal Cut-Off Points

Should it be anything outside the yellow area, or a bit beyond that, or even less than that? In other words do we count the 'norm' as being 70% either side of the middle scores of the population, or 80%, or 60%? Even if we agreed it would be (say) 70%, what happens to the person that falls 1% point outside of that? In other words in the graph above, the mental abilities score ranges from a low of 0, to a high of 10 (this is arbitrary). Now, imagine what the difference is between a person that scores 5.0, versus a person that scores 5.1, or 4.9. Most people would not count these people as qualitatively different in their mental ability scores. After all we all know that people can have poor performing days, perhaps they slept late, or they had an argument with their family that morning, or they heard some news that shocked them. So we understand that minor differences in these scores should not be taken so literally even though there is a quantitative difference of 0.1. The question now before us, is will there be a difference between a person scoring 2.9, 3.0, or 3.1? Using our logic above, the answer should be no – these people could have had a bad day, heard bad news, had a bad night's sleep. Yet if we have a cut off point of being abnormal when you are away from 70% of the population, then the 2.9 scorer is considered *abnormal*. If we consider the 'blue area' of the graph to be 'genius' and you are allowed to join the 'genius' club, then is there a qualitative difference between the scorer who is at 8.9, vs 9.0, vs. 9.1? Again the answer is most likely 'no' and yet if we stuck to this quantitative convention then the 9.1 scorer is considered a 'genius' and the 8.9 scorer is not.

So What?

For the moment then one might ask 'so what?' when presented with this information. More specifically, how does this information impact educational practice?

The first issue then is to reiterate that 'special needs' or 'being abnormal' really should be taken to mean that these children need educational care and attention that is not relevant to the majority of

One Line Plays

This isn't really part of the intellectual content of the lecture, but we did do something in the lecture to discuss the issue of what it means to have children with special needs in your class. It's the 'one line play' format which is a great activity to explore an issue down to it's core.

Divide into small(-ish) groups and get everyone to devise a single line that they deliver to bring about a single idea.

In our example we chose the task of considering the responses that special needs children get in the classroom. Our groups were 8 people large so we had an 8 line play. Each line was constructed to describe the following information:

1. What is the teaching task?
2. How a 'normal' student would respond to this teaching task?
3. How a child who has special needs, would respond to this teaching task?
4. What would the usual response be to the special need child's response?
5. Is the response given in '4' above, helpful?
6. Give an alternative response to how the special needs child responds in '3' above.
7. Is the response in '6' above, better than the responses in either '4' or '5' above?
8. Conclude the play.

We had three 8 line plays delivered by the group, and the responses from the class suggested at the very least, that dealing with special needs children could be both positive and negative. Our 'post-play' discussion suggested that there was no single 'correct' response as to how to deal with children with special needs.

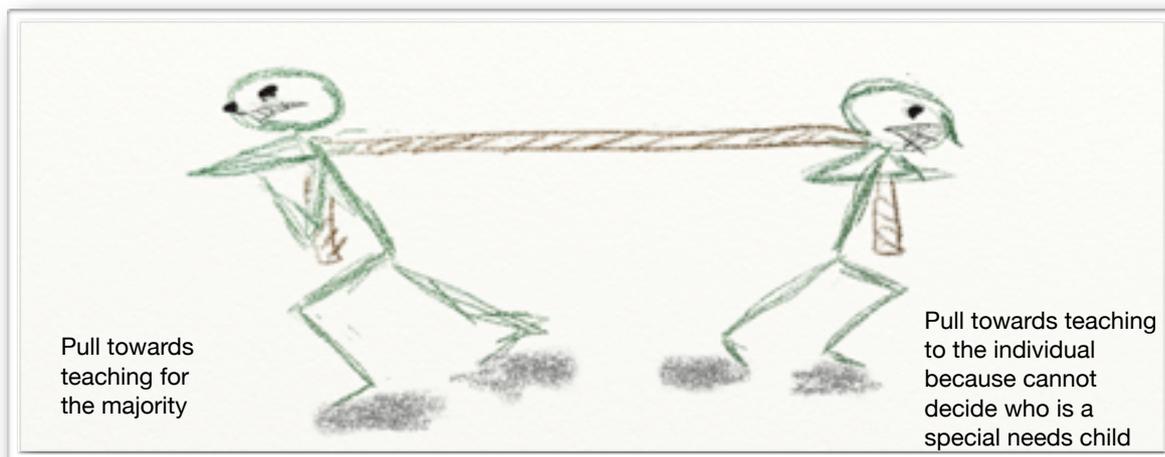


your pupils or students. This could mean **either** that the children are performing far beyond what the majority of the children are doing in your class, **or** they are performing significantly less than the majority of the children.

The second issue is to suggest that the cut off point for when someone is considered a child that has special needs, is not a fixed point. The reality is that no-one can really tell you when a child is considered worth of 'special needs'¹. In as much as every child or student is unique, one can make the case that all students and pupils have 'special' as in unique needs, even if many of those individual needs appear to cluster around some middle ability.

In short, from a practical point of view, you have two forces appearing to pull you in opposite directions, particularly if you have limited resources, such as time.

- Pupils and student's ability to learn a particular topic appears to follow a distribution curve that is probably similar to a normal distribution. That is most children will tend to cluster around a middle ability to learn. Much smaller proportions have abilities in the extremes. In terms of maximising your teaching/learning resources it 'pays' the most to concentrate on the middle ability children since they are the majority.
- It is impossible to define in absolute terms where the boundaries are between the 'middle' ability children and those at either ends of the ability spectrum. This makes it impossible to isolate or treat children on account of their outlier abilities because of this inability to define it adequately.



At most what I am trying to state is that you will probably have to make a decision more locally as to what the balance is between these two apparently competing forces. There is simply no psychological evidence to categorically categorise someone as requiring 'special needs' compared to the norm. If you feel that some of your students or pupils require special attention, and you feel that a special needs programme is warranted, then it is probably best discussed with colleague(s) and/or mentor(s) – you may in the end have to also make your own decision if there is no suitable confidantes available.

¹ This is a case of [social constructionism](#), which is the belief that many issues that have been categorised as real 'things' are in fact really an expression of society's labelling of a set of observations. Society calls this observation into existence. In this case, the 'abnormal' behaviour is not really an issue except when a society says that it is.

Types of Special Needs

Physical

Sadly our society tends to equate any physical impairment as indicative of having a slower intellect. The 'classic' picture is one where a person sitting in a wheelchair tends to be 'spoken to loudly' and with a deliberate 'slowness' by 'normal' people even though they have no idea why the person is sitting in the wheelchair.	
Speech disorders	Anything from a cleft palette, to lisping or any form of impediment that makes speech harder to understand. Students with speech disorders are more likely to be considered intellectually weaker simply on the basis of their spoken words, when in fact they intellect is not necessarily affected by it. The physicist Stephen Hawking is a good example of raw intellect unaffected by a speech
Sight	Visual impairment that does not allow them to observe, or read text as efficiently as 'normally' sighted children. There are a number of sight problems which are not as readily apparent as someone who is clearly blind, but may have significant learning effects.
Deaf &/or Dumb	At least these students/pupils can learn to read and write, and with help learn how to lip read (if they were previously able to hear) and learn how to use sign language. However, these are all specialist skills.
Paraplegic	Effectively motor control has been lost to the lower body.
Cerebral palsy	A part of the brain that controls parts or a side of the body has been compromised (often during pregnancy) so that motor movement for that body part, or side is affected. This might result in a speech defect if the coordination of the speech centres is affected. Cerebral palsy is sometimes associated with a stunting of intellectual development.
Dyslexia	There appear to be a number of causes for dyslexia but it has to do with not being able to consistently recognise shapes and orientation of letters. Dyslexics may often be labelled as slow learners, or intellectually challenged because they cannot complete our modern literate heavy curriculums.

Intellectual

Autism	An very poorly understood condition. For the most part characterised by the autistic person being unable to have an affect, which is a psychological term to describe the condition where they recognise emotions in others. Autistics (when they are able to do so) often describe a sense of disconnectedness from the rest of humanity. A person with severe autistic conditions cannot be normally catered for by people other than specialists.
Attention Deficit Hyperactivity Disorder (ADHD)	Extremely fidgety children with a very low tolerance to concentrate for any period of time. This is a controversial disorder , with the highest concentration of children showing signs of ADHD in California, USA. The controversy is as a result of the fact that medical practitioners (particularly those closely connected to the pharmaceutical industry), feel that this is a medical disorder; the main treatment is the prescription of Ritalin which is a stimulant – sometimes referred to as 'Kiddie-Cocaine'. An opposing camp suggests that the cause of ADHD is a lifestyle rather than a specific medical condition. Children exposed to a 'diet' of media that is delivered in short spurts, actually trains them to not be able to concentrate.

Social

Misbehaviour	This will be covered more extensively in other parts of your programme. However suffice it to say that children may be 'naughty' for a large number of reasons, rather than the child or student being fundamentally bad.
Giftedness	A child that is apparently very advanced for her or his age, may actually face a different kind of problem because their intellectual peers are developmentally (physical and emotional) ahead of them. The result is that the child feels ostracised and isolated both from her/his natural age group, and from the intellectual group that they are with. Think of a 12 year old boy attending a university and how awkward that would be.

Special Schools vs. Mainstreaming

So far the lecture has explained that there is some doubt as to where to place a cut off point at which a child should be considered requiring 'special needs' and also a very short description of the kind of issues that you might encounter as a teacher. However, we can accept that there will be students or pupils that are simply very unusual compared to the rest of the class, and the issue becomes how to work with them in an educational context.

For the moment we will leave aside the issue of one-to-one teaching. Clearly every child that can have access to an individualised teaching/learning programme will benefit in the ability to learn the content of the curriculum (they may of course miss out on the social environment of a classroom setting). However, this style of education is clearly expensive (personal tutor) and therefore only available to relatively few children.

There are two main philosophies in how to cope with children with special needs. The first is to send them to a *special school* (sometimes for those that are above the average abilities, these schools are called a *gifted school*). The other is to keep them in the main schools and is called either inclusive education, or *mainstreaming*.

Special Schools

Advantages	Disadvantages
Special schools that cater to the needs of the children are better equipped and understand the issues far better to fulfil the educational needs of the child.	The wide range of special needs is often not considered by a administrative area that provides the special school. The result is that the special school is considered more of a 'dumping basket' for all the children who do not fit in with 'normal' education.
Children are less likely to feel 'abnormal' if they are surrounded by children who are operating at the same performance level (or close).	Special schools work only if they are adequately resourced with equipment and trained individuals. An administrative area that is short on resources, is most likely to cut operating budgets on special schools on the understanding that resources 'normal' schools will give more children a better education.
Children are less likely to encounter teasing or bullying because of their special condition.	Children attending a special school will be ostracised in their community (ie outside of their school).

Mainstreaming

Mainstreaming is when children with special needs attend a conventional school, albeit one that can cater to specialised instructional sessions with the particular child at various points in their education. In other words they may attend the vast majority of the 'normal' classes but about 20% of their instruction (say) is provided by a specialist who comes to visit the school.

Advantages	Disadvantages
Children are not ostracised for going to a 'special school'.	The schools need more training to adopt this approach which requires more resources.
Often their actual performance is 'better' than the special schools.	In the 'normal' classes the special needs child often takes up proportionately more time for the teacher and this detracts for their time with the 'normal' children who are (by definition) in the majority.
The 'normal' children actually learn to accept a wider variety of the human condition by having children with special needs in their classroom.	Children with special needs may find that they are more prone to teasing because of their apparent differences.

Effectiveness of the two approaches

Ethically it has been impossible to construct a controlled experiment to ascertain whether one style works over the other. However, it is clear that both approaches can be successful **if** they are adequately resourced. This means both training, and physical resourcing. If the resourcing of these approaches is less than ideal then it appears that these students (and the 'normal' students in mainstreaming) suffer (McInerney & McInerney, 1998).

Inter-disciplinary Teaching

Schools that advocate inter-disciplinary teaching/learning are thought to be beneficial for many pupils that are on the 'edge' of being defined as requiring special needs. Montessori, Steiner-Waldorf, Sudbury schools and schools that advocate a Multiple Intelligence approach, tend to have enough latitude to allow children who are away from the norm, to understand and learn from a different perspective. Often children who are given a generic label of having 'learning difficulties', are able to not only 'survive' but also to 'thrive' in this environment. They become indistinguishable from the 'normal' population of children.

Perhaps the way to think of this, is that inter-disciplinary schools allow a broader range of 'paths' for students and children to access the learning material. In more traditional schools these paths are restricted (tending to the more 'chalk & talk' approaches). If a child is not naturally capable in these restricted pathways, then they may be labelled as having a 'learning disability', when in fact what they have is a disposition towards a different learning style.

The Power of Preconceptions

I closed this lecture by talking about a famous psychology experiment done by Bob Rosenthal and Lenore Jacobsen which was called '*Pygmalion² in the Classroom*'. Briefly put, the researchers designed an experiment in which they gave students a number of psychological tests and then announced to the teachers that a number of students '*showed unusual potential for intellectual growth*'. At the end of the year, these children were indeed the ones that outperformed their counterparts. Teachers also rated them as: more curious, happier and required less social approval. No surprises there; – except that the researchers had not used the test results to make any prediction about the child's intellectual progress, but instead 20% of the children were randomly assigned to be 'high achievers'. In other words the designation was complete chance.

The results then, the authors argue, are related to the self fulfilling expectations of the teachers. The study focussed on positive expectations, but there is no reason to believe that the same mechanisms would not hold true for negative expectations. Where do these expectations come from if you don't have social psychologists giving you the results of special tests?

² Pygmalion was a famous play written at the beginning of the 20th century by George Bernard Shaw in which a phonetics professor elevates the class of a common flower girls by giving her extensive elocution lessons. She is subsequently accepted into society thereafter because of their preconceptions of whom she might be because of her (unbeknownst to them recently acquired) upper class accent. It was made into a popular musical called '*My Fair Lady*'.

There are many determinants of a teacher's expectation of her pupils' intellectual ability. Even before a teacher has seen a pupil deal with academic tasks she is likely to have some expectation for his behavior. If she is to teach a 'slow group,' or children of darker skin color, or children whose mothers are 'on welfare,' she will have different expectations for her pupils' performance than if she is to teach a 'fast group,' or children of an upper-middle-class community. Before she has seen a child perform, she may have seen his score on an achievement or ability test or his last years' grades, or she may have access to the less formal information that constitutes the child's reputation. (Rosenthal & Jacobsen, 2003, p. viii).

My question therefore is this: If children are perceived as 'special needs' children, to what extent do they subsequently become precisely that because of our expectations setting up a self fulfilling prophecy that means that the children become precisely that?

Summary

- To talk about a child who is markedly different from the majority of the population is value laden. The terms keep changing over time to avoid this labelling.
- The definition of a child that is different enough to warrant special needs, is not clear cut at all.
- With limited resources in a teaching/learning context, the natural emphasis is to teach to the maximum number of students, rather than focus on a few individuals with special needs.
- This for a practicing teacher provides an apparently opposing forces: not knowing when to give a student special care and attention, vs. teaching to the largest group possible.
- A number of impairments may hinder effective learning: physical, intellectual, and social. Teachers need to understand that an impairment in one arena does not mean that they are hindered in other areas.
- Aside from personal tuition, there are two general philosophies regarding how to handle children with special needs, specialised schools and mainstreaming.
- There is no systematic research done to provide evidence that either approach is necessarily better than the other. Both approaches claim success if they are resourced to a minimum standard.
- Inter-disciplinary schools may have great success with many children who would be classified as having a learning disability in a traditional school.
- One should not underestimate the power of pre-conceptions of a child's learning ability in making a self fulfilling prophesy.

Bibliography

Rosenthal, R. & Jacobson, L. (2003) *Pygmalion in the Classroom: Teacher Expectation and Pupils' Intellectual Development*. Crown House Publishing,

McInerney & McInerney, (1998) Chapter 11. *Educational Psychology: Constructing Learning*, Prentice Hall, Australia

A great blog entry called 'Mainstreaming: A Special Education debate', with many online resources from: <http://msaek.blogspot.com/2007/10/mainstreaming-analysis.html>

Glossary

Abnormal	strictly this means only 'away from the norm' which is the 'majority' of the population. In a statistical sense this means anything that is not scoring at the mode (the most frequent ability score).
Special needs	in education, this is when a child is not able to cope with a teaching/learning context that has been designed and implemented for the majority of the pupils/students. Usually children that are exceptionally talented in an ability are titled 'gifted' as opposed to having special needs. These titles though are 'grey' in definition.
Mainstreaming	an approach to dealing with children with special needs that has then attend a standard school but with special tuition set aside for these children to work with their particular needs.