



Literacy Achievement, Poor Behaviour and Offending in Schools

Prof Tom Nicholson
and Sarah McGregor
Massey University Auckland
Contact details: t.nicholson@massey.ac.nz



OVERVIEW

- What is Literacy and why is it important
- What are the long term effects of being illiterate?
- Types of Poor Behaviours and their interaction with reading
- Literacy in correctional facilities



WHAT IS LITERACY?

- Literacy is considered to be the ability to read and write, and more importantly is used as a tool for communication in society.

WHAT ARE THE LONG TERM EFFECTS OF BEING ILLITERATE?

- Due to feeling 'dumb' or feeling 'stupid' youth often drop out of school with limited foundation skills and no qualifications
- May also lead to higher incidences of socially deviant behaviours such as problems with alcohol, drugs, gambling and other undesirable behaviours which can in turn lead to participation in crime
- Long term unemployment
- Great reliance on welfare/ Government support
- More at risk for mental health issues - low self-esteem and low self-confidence

Four hypotheses concerning how literacy problems and emotional/ behavioural problems are related

1. Behavioural problems such as disruptiveness cause the reading problem by upsetting the learning process (Maughan, Rowe, Loeber & Stouthamer- Loeber, 2003).
2. The frustrations and failure of poor reading leads to 'acting out' and behaviour problems (Nicholson, 2003),
3. There is a common precursor that leads to the development of both problems concurrently (Rutter, Yule, & Rutter, 1970).
4. There is a bi-directional relationship between reading and social, emotional, and behavioural problems.
 - The evidence so far has not clearly determined the direction of the relationship

Five major hypotheses on literacy and juvenile offending (Wheldall & Watkins, 2004, researchers from Macquarie University in NSW)

- The school failure hypothesis is that a lack of success at school leads to low self esteem, frustration, acting out behaviour, truancy and delinquency
- The susceptibility hypothesis proposes that literacy difficulties are exasperated by personality traits that predispose the individual to delinquent behaviour
- The differential treatment hypothesis is that juveniles with literacy problems engage in similar delinquent actions as their more literate peers but the Juvenile Justice System is harsher on the individuals with literacy problems, possibly as a result of their poor school performance
- The socio-demographic characteristics hypothesis proposes that the deprived cultural, financial and emotional background of parents contributes to delinquency, and that there is a greater percentage of learning disabled youth in disadvantaged groups
- The response bias hypothesis is that both learning disabled and non-learning disabled youth participate in crime to the same extent, but those individuals with academic problems are less likely to be effective in concealing their involvement.

Literacy and prisons

- A 2005 UK random survey of 357 offenders across 8 prisons found that 52% had limited literacy skills, and 20% may have had dyslexia. 93% spoke English as their native language (Rack, 2005)
- In 2004 there were 74,770 prisoners in England and Wales (compare Australia, 2006 - 25,000 adult prisoners and 50,000 adult offenders on bail or on community orders)
- Of these prisoners 56% were likely to re-offend (compare Victoria recidivism study 2003 – one third re-offend)
- 50% of prisoners had left school with no formal qualifications
- Prisoners who do not receive basic skills training during their prison term are three times more likely to re-offend
- UK study conclusion: Early recognition of reading disabilities could keep 15,000 persons out of prison each year and save tax payers 410 million pounds.

Is poor literacy in prisons any different to the general population?

- Much research has shown that prison populations have higher incidences of reading and spelling problems than the general population. The prison adult literacy random sample survey (Morgan & Kett, 2003) of nearly 300 prisoners, conducted for the Irish Prison Service, found that 53% were at low or basic levels of reading and writing compared with 23% of the general population
- The study found that younger prisoners (under 30 years) had worse literacy problems than older inmates. This fits with some studies showing up to 70% reading problems for juvenile offenders
- But - not all studies find a reading discrepancy between the general population and the prison population. Studies of prisoners in Sweden found no difference (Samuelsson et al., 2000, 2003). See also Australian study (Black, Rouse, & Wickert, 1990)

The New Zealand situation (present NZ population 4 million)

- Mudford (1993) surveyed 3,000 inmates and asked them if they had reading, writing or maths difficulties.
- 21% said they had reading difficulties
- 32% said they had writing difficulties
- 31% said they had maths difficulties

New Zealand situation continued

In 1987, a Department of Justice survey of 983 inmates in 19 prisons found that:

- 9% were reading at a 7 year level
- 39% were reading at a 7-10 year level
- 38% were reading up to a 12 year level
- 14% were reading above a 12 year level

Conclusion: 48% were reading at or below a 10 year level

Levels of literacy among juvenile offenders

- A UK literacy survey (Snowling et al., 2000) compared 91 male offenders aged 15-17 with a comparison group of 38 males of similar age
- More than half of the offenders had low literacy scores (mean standard scores of 85 for reading and 75 for spelling).
- On Wechsler intelligence scales (WISC) the offenders were low on verbal ability (mean=75) but in average range on non-verbal ability (mean = 89).
- Dyslexia incidence = 42 to 57 percent
- Conclusion: poor literacy of offenders probably due to a combination of inadequate educational opportunity, poor school attendance, and resistance to learning
- Suggestion: Interventions to improve reading and writing may increase employment chances and reduce re-offending

Indicators of future youth offending. How many students are excluded from NZ schools each year?

- A stand-down is exclusion from the school for a specified period, no more than 10 days a year, for disobedience, or physical assault.
- A suspension is for more serious behaviour e.g., drugs, and can be for an unspecified period. (Ministry of Education, 2002)
- In 2001 there were 17,421 stand-downs and 4,872 suspensions, a total of 22,293 students in all
- This was 2.6 percent of the total school roll (Ministry of Education, 2002).
- Of these, 75% were boys, and 40% were Maori.
- 50% were 13 to 15 years of age
- The percentage of students excluded from school for poor behaviour is not high, but the total number (nearly 23,000 students) is far from small

Students with conduct disorders

What is the long-term prognosis for such students? A US study (Stanford Research Institute International, 1990) found that:

- 58 percent of students with conduct disorders left school without formal qualifications
- 20 percent were arrested at least once before they left school
- 35 percent were arrested within two years of leaving school

The present study - A cross-sectional survey study of reading progress and possible effects on motivation to read, social, emotional and behavioural development

Participants

- McGregor (2005) surveyed 226 pupils, aged 6, 8, and 11 years in high-decile (more affluent) schools.
- Of the total group of 226, 51 pupils had reading standard scores below 100 (51 out of 226 – 23%), and 175 had scores at/above 100.

Measures

- Students were assessed for reading (WRAT – Wide Range Achievement Test), behavioural indicators (Strengths and Difficulties Questionnaire – the SDQ), and attitudes to reading (Motivation to Read Test)
- Tam (2005) found that the Motivation to Read Test did successfully discriminate between good and poor readers.

Parents completed the Strengths and Difficulties Questionnaire (SDQ)

Goodman, R., & Scott, S. (1999). Comparing the strengths and difficulties questionnaire and the child behavior checklist: Is small beautiful? *Journal of Abnormal Child Psychology*, 27, 17 – 25

Sample questions asked:

1. Emotional problems

“Many worries, often seems worried”

“Often unhappy, downhearted or tearful”

2. Conduct problems

“Often fights with other children”

“Steals from home, school, or elsewhere”

3. Hyperactivity

“Restless, overactive, cannot stay still for long”

“Easily distracted, concentration wanders”

4. Peer problems

“Rather solitary, tends to play alone”

5. Pro-social competence

“Considerate of other people’s feelings”

“Shares readily with other children”

Reference: Strengths and Difficulties Questionnaire www.sdqinfo.com

Significant differences between better and poorer readers on SDQ

1. Total SDQ scores

Better readers M=7.78

Poorer readers M=10.49

2. SDQ Emotional symptoms

Better readers M=1.72

Poorer readers M= 3.11

3. SDQ Conduct problems

Better readers M=1.05

Poorer readers M=2.35

4. SDQ Hyperactivity problems

Better readers M=2.56

Poorer readers M=4.9

5. SDQ Peer problems

Better readers M=1.31

Poorer readers M=2.016

6. SDQ Pro-social problems (no difference in scores)

Better reader M=8.01

Poorer readers M=8.18

Motivation to read questionnaire

Gambrell et al. (1996). Assessing motivation to read. *The Reading Teacher*, 49, 518-533

Types of questions asked are:

1. I worry about what other kids think about my reading

- a) Every day
- b) Almost every day
- c) Once in a while
- d) Never

2. When I read out loud I am a

- a) Poor reader
- b) OK reader
- c) Good reader
- d) Very good reader

3. When I come to a word I don't know I can

- a) Almost always figure it out
- b) Sometimes figure it out
- c) Almost never figure it out
- d) Never figure it out

Results for motivation to read

1. Motivation to Read subscale: Value of reading

Better readers $M=32.62$

Poorer readers $M=30.80$

No significant difference

2. Motivation to read subscale: Self-Concept

Better readers $M= 30.57$

Poorer readers $M=26.62$

Difference was significant

TYPES OF POOR BEHAVIOUR AND THEIR INTERACTION WITH READING

- Oppositional Defiant Disorder
- Conduct Disorder
- Hyperactivity
- Emotional Problems

OPPOSITIONAL DEFIANT DISORDER

- The DSM-IV (APA, 1994) criteria for ODD is that it is a recurrent pattern of negative, defiant, disobedient, and hostile behaviour toward authority figures which lasts at least six months, and during which four or more of the following symptoms are present: often loses temper, often argues with adults, often deliberately annoys others, often actively defies or refuses to comply with adult's requests or rules, often blames others for his or her mistakes or behaviour, is often touchy or easily annoyed by others, is often angry and resentful, and is often spiteful and vindictive.
- Prevalence of ODD is thought to range from 2.1% to 15.4% in males and 1.5% to 15.6% in females aged between nine and fifteen years of age

CONDUCT DISORDER

1. There are four different types for classification:
 - aggressive conduct that causes or threatens physical harm to people or animals
 - non-aggressive conduct that causes property loss or damage
 - deceitfulness or theft
 - serious violation of rules
2. Poor parenting, marital discord, socioeconomic disadvantage harsh discipline measures and poor supervision of the child can exacerbate the extent of the CD (Patterson et al. 1989; Hallahan & Kauffman, 2000).
3. CD children lack moral awareness, and view antisocial behaviours as exciting and rewarding (Davison & Neale, 1994).
4. Patterson et al. (1989) argue that antisocial behaviour predicts delinquent behaviour in adolescence and adulthood.
5. Prevalence from 1.8% to 9.2% between 9 and 15 years (Loeber, et al. 2000).

- Problem behaviour is associated with poor academic achievement (Smith, 1998; Newcomer & Barenbaum, 1995; Rabiner & Malone, 2004; Hinshaw 1992),
- Reading problems have been identified as a risk factor for conduct problems (Bennett, Brown, Boyle, Racine & Offord, 2003).
- Around 10% of those with reading problems have conduct problems.
- Children with reading problems at the beginning of schooling have increased rates of conduct problems up to 16 years of age (Fergusson & Lynskey, 1997).
- Results from our research backed up these all the above findings. They indicated that the 8 and 11 year old males had more conduct problems than the females.
- There was a significant interaction effect for age by gender by reading level ($p<.03$). The interaction shows that 8 year old males who were below average readers had worse scores than above average males and that compared with 11-year-old above average females , 11-year-old below average females had results in the abnormal range.

HYPERACTIVITY/ ADHD

- ADHD is a learning disorder where the child has difficulty sustaining attention, experiences difficulty controlling their impulsivity, and the child is very active.
- Predominantly inattentive ADHD is where by the child exhibits six of the symptoms for inattention: they do not listen, have difficulty organising tasks, often lose things, do not follow instructions, are forgetful and are easily distracted by external stimuli (DSM-IV, American Psychiatric Association, 1994).
- Children with predominantly hyperactive- inattentive ADHD must show six symptoms from the hyperativity and impulsivity cluster, which includes: fidgeting, difficulty playing quietly, incessantly talking and blurting out answers, difficulty awaiting their turn and interrupting.
- Given the distracting nature of all the aforementioned symptoms, it is not surprising that reading disabilities are so frequently associated with ADHD (Hinshaw, 1992), with a comorbidity of the two disorders ranging from between 10% - 50%.

- ADHD is also comorbid for conduct disorder, depression and anxiety (Biederman, Newcom, & Sprich, 1991), and is thought to account for 40% of all children in programs for Emotional Disorders (ED) and almost a quarter of children in LD programs (Forness & Kavale, 2000).
- A study of participants from The Dunedin Multidisciplinary Health and Development Study and the Australian Temperament Project (ATP) found 1. attention problems and poor reading were significantly associated and 2. antisocial behaviour predicted poor reading (McGee, Prior, Williams, Smart and Sanson, 2002)
- Children and youth with RD and ADHD also have very similar negative long-term prognoses. Hyperactivity in preschool and school entry level is associated with academic and behavioural problems up until 15 years of age, which is also a similar long-term prognosis for children with RD who are not given appropriate interventions (McGee et al., 2002).
- Our research found that, for hyperactivity, there was a significant reading ability by gender effect. Among below average readers, males had more hyperactivity characteristics than females at age eight, and females had more hyperactivity characteristics than males at age eleven.

EMOTIONAL PROBLEMS

- 5% of adult men, 10% of adult women, between 6% and 7% of adolescents and 1.8 percent of children aged 7-12 experience depression (Wright, Strawderman, & Watson, 1992),
- Depression is also one of the most commonly found psychiatric disorders among suicidal adults and children.
- The current DSM-IV criteria for diagnosing depression in children and youth are the same as for adults: The individual must display five or more of the following symptoms over the same two week period, they must represent a change from previous behaviour, and include either depressed mood or diminished pleasure, and/or significant weight loss, insomnia or hypersomnia, psychomotor agitation or retardation, which is more common in preschool children, fatigue or loss of energy, feel worthless or guilty, diminished ability to concentrate, social withdrawal, and/ or recurrent thoughts of death or suicide.
- Other symptoms of depression can include a negative view of the future, and they may exhibit socially undesirable behaviours (Reynolds & Johnstone, 1994).
- Depressed children and youth also have more difficulties in a range of social relationships (Rutter & Rutter, 1993)

- Current research shows that reading, depression, and emotional problems are correlated. Maughan, Rowe, Loeber, and Stouthamer-Loeber (2003) found correlations between severe, persistent reading problems and increased rates of depression in children with reading problems.
- Individuals with reading disabilities are significantly more likely than individuals without reading disabilities to meet criteria for depression (Willicutt and Pennington, 2000). Level of depression in a child is significantly related to current reading level, grade average, and overall reading achievement (Vincenzi, 1997)
- Researchers who have studied children with depressive symptoms have poorer academic and cognitive scores that would label them as having some form of learning disability (Wright Strawderman, & Watson, 1992).
- Our research backed up the above findings. It showed a significant interaction effect for reading level and age. Emotional problems were more pronounced in female poor readers at the eleven year age level.

Conclusions

1. At school entry, pupils who live in high crime, poverty areas start school very unprepared to read and write. This will have cascading negative effects on their literacy progress
2. Literacy problems are not isolated unto themselves. Their effects spread like a disease to poor self-esteem, anger and resentment, disruptive and anti-social behaviour
3. Literacy interventions can increase reading skills and reduce conduct problems
4. Interventions that teach survival literacy will be of short term benefit - employers want more than someone who can only read a bus timetable or fill out an application form
5. Proper literacy skills are necessary to find employment for young offenders which in turn can reduce the likelihood of re-offending