Building Resilience for Children with Borderline Intelligence: A Meta-Academic Framework

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• Introductions

• Anna Jankowska: PhD University of Gdansk (2011)
  • Experience working in schools and community foster care centres in Poland
  • Visiting scholar at: Universidad Complutense de Madrid, Universidad Santiago de Compostela (Spain), CUNY-Brooklyn College (US) & McGill University (Montreal).

• Steven R. Shaw: PhD University of Florida (1991)
  • Experience in schools, hospitals and private practice
Introduction

- Based on work that I originally conducted with children with borderline intellectual functioning
- Even after we improved academic skills to near grade level (something I thought was a big deal), but the students still failed classes and provincial/state test scores did not go up
- My work was picked up by a scholar in Poland and advanced
- The work is now referred to as the Jankowska-Shaw model in Europe and the meta-academic model here
- Jankowska and I are now frequent collaborators
Agenda

10:00
Understanding Students with Borderline Intelligence
A review of international research and identification of them problems

12:00
Lunch

13:30
Academic Skills

14:30
Meta-academic Framework

16:00
End of Session
Ground rules

• Questions and comments at any time are welcome
• Bathroom and smoke breaks don’t bother me
• If I need a break, then I may ask for one
• Please do not throw food at me (or Anna & if u have to throw please choose soft products: boiled eggs or cupcakes)
• This is a long session, so I want to have fun here
• I respect that it is far easier for me to talk than for you to listen
• What do you want to know?
Assumptions

- All children can learn
- Low intelligence is not academic destiny
- Intelligence is still a useful construct
- Low intelligence is another risk factor that can be overcome
- Good teaching is one key to creating resilient children
Resilience

- Success despite obstacles
  - Poverty
  - Minority group status
  - Language minority
  - Abuse/neglect
  - Incarceration
  - Gender
  - High intelligence is usually considered a protective factor not an obstacle
Borderline Intellectual Functioning

• **DSM-IV-TR** *(APA, 2000)*

✓ Axis II V62.89

✓ “...describes an IQ higher than that for Mental Retardation (generally 71-84)...it is possible to diagnose Mental Retardation in individuals with IQ scores between 71-75 if they have significant deficits in adaptative behaviour ...Borderline Intellectual Functioning requires careful consideration of all available information...”

• **ICD-10** *(WHO, 1992)*
Understanding the bell curve allows some insight into students with borderline intelligence learners.
## Functional Versus Bureaucratic Differences Among Three Children

<table>
<thead>
<tr>
<th></th>
<th>Johnny</th>
<th>Ed Earl</th>
<th>Jimmy Joe</th>
</tr>
</thead>
<tbody>
<tr>
<td>WISC-FSIQ</td>
<td>66</td>
<td>100</td>
<td>74</td>
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<tr>
<td>SIB-R BI</td>
<td>70</td>
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<td>WIAT-II BR</td>
<td>60</td>
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<td>WIAT-II RC</td>
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<tr>
<td>WIAT-II NO</td>
<td>60</td>
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</tbody>
</table>
# The Slow Learner Whirlpool

<table>
<thead>
<tr>
<th>Grade</th>
<th>Presenting Problem/Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-2</td>
<td>learning disorders-NOS</td>
</tr>
<tr>
<td>2-4</td>
<td>ADHD</td>
</tr>
<tr>
<td>5-7</td>
<td>ODD, CD, and motivation issues</td>
</tr>
<tr>
<td>8-10</td>
<td>Major depressive disorder, dysthymia, severe academic motivation deficits</td>
</tr>
<tr>
<td>10-12</td>
<td>School drop out, legal system involvement, early pregnancy, unemployment, underemployment</td>
</tr>
</tbody>
</table>
Causes of Slow Learning

- Poverty/deprivation
- Prematurity
- Congenital issues
- Acquired brain insult
- Familial/polygenetic inheritance
School Grades

- Student’s characteristics:
  - cognitive abilities
  - personality traits

- Classroom practices:
  - teacher-student interactions

- Contextual variables:
  - home environment
School Success

- Student
- Parent
- Teacher
School success – systemic approach

*causes of school failure
*feelings about the failure
*attitudes towards a child
Student’s Perspective

- Learning strategies, study habits & „feeling of knowing”

- Beliefs about one's own ability to think - theories of intelligence

- Beliefs about the factors that produce success or failure - attributional theories (Weiner, 1985)

- The role of the effort

- Locus of control (future plans)

Motivation to achieve vs motivation to avoid
Parent Involvement

- awareness
- understanding causes of the school failure
- intellectual stimulation
- attitude towards intellectual activities
- homework & school tasks
- emotional support
- seeking help
Parent Involvement

feelings

expectations

attitudes
Parent Involvement

• Change setting
• Tangible reward (e.g., GED training, food)
• School initiated
• Home visit
• Train parents how to seek help and show emotional support
• Respect for real life (e.g., child care, work hours)
• 60% participation is a good goal
Parent Involvement Essential, but Difficult

- Parents usually find school aversive
  - Personal experiences
  - Parent blaming
- Often have multiple jobs
- No news is good news mindset
- Won’t make a difference
Lack of results

Frustration

Rejection & withdrawal
LUNCH BREAK
BE BACK AT 13:30 (1:30PM)
Housekeeping

• I have a handout summary of the presentation available
• Later this week, all of the slides presented will be available as a pdf file on my website.
• Do not forget to sign in to ensure CPD credits.
Academic skills (traditional approach)

- reading
- writing
- math

School success
Basic Constructs for Teaching Children with Borderline Intelligence

Five themes

• Make all instruction concrete and relevant
• Preorganize presentation of new material
• Program skill transfer/generalization into every activity
• Appropriately paced classroom
• Prevention of disciplinary problems
Why these five?

- Can be applied to any curriculum at any level?
- Relevant to improved test scores
- Effective strategies for all children
- No specialized skills required
Increasing engaged time

- Speed
- Little down time
- More repetitions
- Small group and computer assisted instruction
- Use of packed curricula as a supplement
- Educational games ("now you teach me")
Transfer/Generalization

- Cross topic instruction
- Meta-cognitive reminders
- Associate new material to previously learned material
- Across setting instruction
Concrete Instruction

• See it, feel it, hear it, do it
• Make it relevant to life (parents involvement)
• Students with BIP often do not see beyond their fingertips
• Lack delay of gratification (do not deny child’s feeling and excitement, use fantasy & wishfull thinking)
• How to library (love it! Dictionary, desk instructions, guitar song)
Reading Instruction

*Reading/language is abstract*

• In the classroom use a three-tiered attack:
  ✓ direct instruction of phonological skills
  ✓ concrete reading
  ✓ speed rehearsal of site words

• Do not assume generalization

• Use language therapy for phonemes and comprehension

• Chart progress on vocabulary and spelling words
Direct Instruction Principles

• Hyperorganization
• Rehearsal
• Group and individual instruction and practice
• Frequent (daily) assessment
• Speed
Five Prongs of Reading Instruction

• Phonological Awareness
• Phonics
• Comprehension
• Fluency
• Vocabulary
Don’t Forget the Sight Words

- Everyone knows the Dolch words
- For slow learners, expand the Dolch word list from 250 to 1,000
- Reduces the impact of phonological awareness weakness
- Takes advantage of relative strength in rote memorization
- Requires context
- http://esl.about.com/library/vocabulary/bl100_list1.htm
Math Difficulties

- Working Memory
- Language and communication disorders
- Quantitative Awareness
- Motivation
- Attention
- Organizational Skills
- Math Anxiety
Use of the Abacus

- 65% of the world learns math facts on an abacus
- Brings the abstract and arbitrary nature of pencil-and-paper math to concrete counting
- Unlike manipulatives, an abacus is systematic
- Teaches concepts, unlike calculators
Research Problems

• After academic skill training, children with borderline intelligence developed academic skills near grade level, but they still failed in school.

• Of all the teacher characteristics predicting academic resilience, only child’s perception that they care about the child as a person was predictive.

• Community and family supports were more predictive of success than any of 216 other educational and school variables.

• School policies (especially grade retention) are more often risk factors than resilience factor.
Meta-Academic Model
Meta-Academic Model

Social skills
Adaptive School Behaviours
Executive Functions
Coping with Mental Health Issues
Coping with Medical Issues
Social Skills

- Peer communication
- Friend making
- Conflict Resolution
- Adult communication
- Self-care
- Being bi-cultural (e.g., child and adult world)
Social Skills Training

• Modeling
• Role Playing
• Performance Feedback
• Transfer of Training
School Adjustment

- Rule following
- Coping with challenges (including failure)
- Grit (task persistence)
- Schooling skills
  - Study habits
  - Problem solving
  - Academic motivation
Executive Functions

- Frontal lobe issues
- Closely related to attention and ADHD
- Difficult to completely remediate
- Accommodation is more common and effective
- Becoming a critical aspect of psychological assessment
- Those with low intelligence usually have EF problems
Mental Health

- Susceptibility
- Psychopathology
- Stress/anxiety management
- Access to care
- Medication management
Physical Health

- Exercise/fitness
- Nutrition
- Sleep
- Chronic/Acute Illness
- Injury/Genetics
- Access to care
- Coping with stress
Common Executive Functions

- Emotional Control
- Impulse Control
- Mental Flexibility
- Initiation
- Working Memory
- Planning

- Organization
- Organization of Materials
- Self-monitoring
- Creativity
- Social affect
- Social interpretation
Inhibition

- Impulse control issues
- Structure
- Routine
- Limit setting
- Response delay techniques
- Verbalize plan
- Multiple plans
Materials

• Parent collaboration/home organization
• Extra set of books
• Weekly work plan
• Checklist of materials needed
• Stress organizational behavior
Initiate

• Not laziness or lack of motivation
• Need for jump start
• Don’t ask children to raise their hands when they have a question
• Cooperative projects
• Watch for overload
Planning

- Planned binder or cookbook
- Modeling of planning
- Stress strategic approach to tasks
- Date books and timelines
Mental Flexibility

- 2-minute warning
- Routines and structure
- Daily schedule
- Plan for the unexpected
- Peer support
- Time limits--enforced
Working Memory

• One step at a time
• Don’t write homework on the blackboard
• Encourage self-talk
• Mnemonic devices
• Comprehension checks
Emotional Control

- Clear rules and consistent enforcement
- Adjust academic demands
- Peer modeling
- Concrete metaphors
- Group counseling
- Similar to impulse control
Meta-academic training

Assumption that all students have equal ability to acquire academic skills

Students are not taught how to learn

Not knowing how to learn makes school success extremely difficult

Less effective coping skills in order to simply “survive”
Previous Efforts

- Thinking skills curricula had their day, but are limited in success
- Social-emotional learning focuses on relationships and are not always designed to improve academic skills
- Social skills training lack generalization and are often not effective
- Academic enabler research has minimal impact
- Miracle approaches never work (e.g., BrainGym, Doman-Delacato, and many others)

- *We know that narrowly defined and specific interventions are always more effective than broad interventions.*
Therapeutic Model of Coaching

Self-Awareness
Teaching Specific Skills
Construct of Interest
External Control Cues
Generalization Planning
Therapeutic Models

Approach to Intervention

Internal Change
(developing meta-academic skills)

External Control
(developing teaching strategies)
Awareness is the key

- Self-knowledge
- Learning style
- Locus of control
- School success & failure attribution
- Effort
Meta-Academic Model

Social skills

Adaptive School Behaviours

Executive Functions

Coping with Mental Health Issues

Coping with Medical Issues
First Products

- 12 session program on emotional control for adolescents (called CERTIFY)
- 12 session program on impulse control for adolescents
- Will have 60 different 12 session programs in total when the project reaches maturity
Certify

(Cognitive Emotion Regulation Training Intended for Youth)

- Intro
- Acceptance
- Self-blame
- Positive Refocusing
- Rumination
- Refocus on Planning

- Catastrophizing
- Positive Reappraisal
- Blaming Others
- Putting Intro Perspective
- Conclusions
Administration

- Working with children in resource settings, alternative schools, after-school tutoring, with the Montreal Alouettes CNAAA program,
- Administered by teachers, grad students, behavioural technicians
- So far—the best method has been during school hours via either behaviour technicians with teacher-selected high risk students
- Sitting down with administrators and teachers to select students
- Sessions with 8-15 students
- 2 or 3 adults (a leader, a facilitator, and a school observer)
- **Acceptance**: Refers to thoughts of accepting what you have experienced and resigning yourself to what has happened. Give example: coming to terms with the passing of a loved one – eventually need to accept that it has happened.

- **Positive Consequences/Negative Consequences**: Acceptance as a coping strategy has a positive relationship with measures of optimism and self-esteem and a negative relationship with measures of anxiety. Mention the unpleasant physical symptoms of anxiety and how employing more adaptive strategies have real physical advantages.
Certify--acceptance

- **Lesson (Practice the Skill and Reinforce)**
- **Video Example:** Annie from Community, accepting that she is a “square.”
  [http://www.youtube.com/watch?v=gQqcXfz1HoY&feature=related](http://www.youtube.com/watch?v=gQqcXfz1HoY&feature=related)
  - Analyze situations with group: provide a scenario that would likely induce negative emotions/reactions from adolescents. Then, without priming, ask them how they could or would respond currently and what consequences may result. After, ask how they may have reacted if they were employing the acceptance coping strategy and compare the consequences. Exercise – write down the story emotions thought below (list of emotions)
- **Case Example:** 1) being given up for adoption, 2) dropping out of college, 3) being forced out of his own company, 4) battling with cancer.
  - Who is this? ______
  - Each of these difficult periods, coupled with probably a multitude of daily tribulations, could have been anchors for him to question his worth, to feel sorry for himself, or to give up. Yet, he unconditionally accepted himself despite others’ opinions, and proceeded to develop pioneering technology and one of the most successful businesses.
  - Who is this? Steve Jobs
  - Let’s imagine how Steve Jobs’ life would have turned out if he stopped persevering at each challenging point of his life.
  - Exercise: own experience
Certify--acceptance

- **Practice (Real-life Situations and Reinforce)**

- Role Play:
  - Chores
  - Homework
  - Examples from Group
Certify--acceptance

- **Follow-up: Recap and homework**
  - write down situations during the week where they may have employed the acceptance strategy, as opposed to their habitual ways of dealing with negative situations. Or, list situations where they could have, but did not use acceptance. Finally, they can list past experiences they’ve encountered that they did or should have used acceptance.
  - Reinforce that the homework is for the benefit, it is not graded or enforced, but that they will have the opportunity to share next session.
CERTIFY Results

- After 12 week sessions of high risk students at three high schools there are statistically significant improvements in the following outcomes:
  - Grades improved
  - Increased completion of homework
  - Self and teacher reports of improved classroom behaviour
  - Reduction in self and parent reported risky behaviours
  - Reduction in disciplinary incidents
- More to come as the program is expanded
Current Projects

- Risky behaviours and leadership skills
- Measuring adolescents’ emotional regulation
- Mentorship as a method of teaching meta-academic skills
- International approaches to meta-academic instruction
- Emotions concerning academics and academic motivation
- Developing programs for all domains
Formula for Success

Effort + Ability = Success
Are they truly unmotivated?

• No, students are motivated to do many things

Student are highly motivated. Often this is the problem.
What is motivation?

- Intrinsic interest
- Goal setting
- Self-monitoring

Effort is impossible without motivation.
Motivation requires the basics

Sleep
Food
Health
Safety
Peer support
Family support
Family stability
Free from drugs
Free from major mental illness
Is there a reason?

- Academic motivation is often a canary in the coalmine
  - Mental health
  - Illness
  - Can’t do versus won’t do
  - Adjustment issues
  - Personal issues
  - Family issues
  - Peer relations (including bullying)
Motivation

• Overcoming history
  • Family history
  • Personal History
• Developing hope
  • Developing skills
  • Beating the system
• Reducing alienation
  • Personal relationships
  • Building community
• Back to basics
  • Study skills
  • Social skills
Classroom threats to motivation

• Inconsistency
• Unfairness
• Humiliation
• Battle of egos
• Saving face
• Avoiding anger
Can we motivate students?

• We cannot force motivation
• We can plant seeds and water them
• We need to set up an environment where academic motivation can develop
• There are no guarantees or promises, only improvement
• We cannot guarantee success, but without a strong effort directed at motivation we can guarantee failure
Teacher-student relationships

Relationship between teacher and student are critically important for academics and behavior.

- Over 95% of slow learners described as “unmotivated”
- Teachers report that they would much rather work with “average or above average ability students”
- Teachers report feeling that working with slow learners is “unrewarding.”
- Teachers ignore slow learners and do not develop a bond with them
- 15 minute banking system
- List the five children who are least rewarding to work with.
Consider Teacher-Child Relationships

• Slow learners often provide little reinforcement for teachers
• Pull-out programs, inclusion, and 504 plans interfere with relationship building
• Intervening at the level of the teacher-child relationship can be effective
Teacher-student relationship

- Teacher’s insight
- Reducing alienation
- Mutual respect
- Student’s need for affirmation
Advocacy for Students with Borderline Intelligence

• Without advocacy slow learners will continue to be ignored
• There are no politically powerful natural advocates
• The biggest advocates are advocates of ignoring the slow learners (e.g., the LD and ADHD lobbies)
• This is the peptalk portion of the day--someone has to support these children
• Why not us? Pet peeve: passive educators
For More Information

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• Recent Interview on the Topic:
• Lab Twitter Account: twitter.com/Shawpsych
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- Website: www.mcgill.ca/connectionslab
- Recent Interview on the Topic:
- Lab Twitter Account: twitter.com/Shawpsych
• Merci. Je vous remercie de votre attention

• Bonne journée