Developing a storybook-based curriculum for preschoolers with autism spectrum disorder

Heather MacKenzie, Ph.D.
Winnipeg, Manitoba, Canada
www.drheathermackenzie.com

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Session # 2100
Thursday, November 20  8:00 AM - 10:00 AM
McCormick Place West – W181B
Overview of this session

• Important features and factors:
  – What is a curriculum?
  – Why use storybooks?
  – Which storybooks should I use? In what order?
  – How do I map a storybook-based curriculum?
  – How do I read storybooks?
What is a curriculum?

- A curriculum is
  - not just a set of goals and activities
  - coherent framework that will guide us and communicate to others

- where we are trying to go
- what means we are going to use
- why we will use these particular approaches
- how we are going to make decisions
Curriculum - 5 main issues

1. Philosophy
   - what constitutes effective teaching/intervention and learning
   - what are your main beliefs about
     • children with ASD, their parents, siblings, extended family members
     • teachers, therapists
     • learning with storybooks
Curriculum – 5 issues (cont’d)

2. Principles – aligned with evidence-based practice and state/provincial standards
   - **Content**: incorporate learning preferences and strengths, interests and affinities
   - **Structure**: ensure predictability and visual support; intersperse preferred and less preferred
   - **Process**: encourage initiations, choice, turn-taking
3. Goals and Desired Outcomes –
   - the teachers, assistants, therapist will …
   - the families will …
   - the children will …
Curriculum – 5 issues (cont’d)

Child goals extended into adulthood

Essential cognitive backpack (Levine, 2007)
1. in-depth comprehension
2. project mentality
3. productive relationships
4. inner direction
Curriculum – 5 issues (cont’d)

4. Partnerships
   - every person concerned with the child has a piece to the puzzle
   - each team member brings observations, insights, knowledge and experience
Curriculum – 5 issues (cont’d)

5. Decision-making – how will we know that the curriculum is working?
   - include pre-assessment, formative and summative assessments
   - use observations, checklists as well as norm-referenced evaluation
   - involve parents, therapists, teachers, aides, etc.
Why use storybooks?

• Storybooks can provide a rich resource for therapy or intervention that is
  – relatively inexpensive
  – readily available
  – accessible
  – ‘typical’

• Storybooks can be effective media for enhancing most areas of development
Why storybooks? (cont’d)

- Storybooks are repetitive and predictable
- Words are supported by illustrations
- Storybooks use more complex vocabulary and sentence structure
- Storybooks emphasize the interplay between the adult and the child - with the book as a shared focus
Storybook Dynamics

Setting

Dynamic Interaction

Storybook

Adult

Child

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Why storybooks? (cont’d)

- Honor Learning Preferences and Strengths
  - repetition
  - sensing, hands-on
  - logical, orderly, predictable
  - visual
  - rhythmic
- Provide overall coherence to a program
Why storybooks? (cont’d)

- Cognitive development
  - self-regulation
  - systematic approach
  - remembering
  - predicting, hypothesizing
  - perspective-taking
  - flexibility
  - play development
  - symbolic thinking
Why storybooks? (cont’d)

• Social and behavioral development
  – joint attention
  – behavioral self-regulation
  – ‘safe’ presentation of social dilemmas
  – reciprocity, shared participation
Why storybooks? (cont’d)

• Language & communication
  – vocabulary
  – sentence structure
  – dialogue and conversation
  – narrative structure
Why storybooks? (cont’d)

- Academic development
  - attitude toward books
  - print and book conventions
  - pre-reading skills
  - pre-writing skills
Which storybooks?

• Little attention given to this consideration

• General guidelines
  – salient and clear print and illustrations
  – age appropriate
  – interesting to the child
  – familiar experiences
  – positive model
  – publication date is not important
Which storybooks? (cont’d)

• Goal: develop some way for everyday people to determine objectively which books to use early and which to use later

• 2 main features seemed to have greatest importance:
  1. content and complexity of each book
  2. structure of each story
Which storybooks? (cont’d)

• Goal: develop some way for everyday people to determine objectively which books to use early and which to use later

• 2 main features seemed to have greatest importance:
  1. content and complexity of each book
  2. structure of each story

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Which storybooks? (cont’d)

- Selected 25 books commonly found on preschool curricula.
- Sorted books into 3 groups according to which I would use early in intervention, which could follow those and which books I would use later.
### Which storybooks? (cont’d)

<table>
<thead>
<tr>
<th>Book content and complexity of different book levels</th>
<th>Statistically Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text-to-illustration relationship</td>
<td>✓</td>
</tr>
<tr>
<td>Number of pages of print</td>
<td>✗</td>
</tr>
<tr>
<td>Number of sentences</td>
<td>✓</td>
</tr>
<tr>
<td>Number of words</td>
<td>✓</td>
</tr>
<tr>
<td>Number of words per page</td>
<td>✓</td>
</tr>
<tr>
<td>Number of words per sentence</td>
<td>✗</td>
</tr>
<tr>
<td>% different words</td>
<td>✗</td>
</tr>
<tr>
<td>% ‘uncommon’ words</td>
<td>✗</td>
</tr>
<tr>
<td>% multisyllabic words</td>
<td>✗</td>
</tr>
</tbody>
</table>

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Which storybooks (cont’d)

- Narrative structure in terms of story grammar categories was not particularly useful
- Found two categories of information helpful:
  - Presence and absence of ‘once-upon-a-time’ structure
  - Short event chains
Which storybooks? (cont’d)

- Analyses led to several conclusions:
  - illustration-to-print relationship was important
  - story structure was important
  - significant differences between book levels came down to the total number of words
Level 1 storybooks

1. **Text-Illustration relationship** - strong – each sentence or phrase is supported by an illustration

2. **Three-page word count** – less than 25 words

3. **Story structure** - actions or events are not necessarily connected logically or consequentially
Level 2 storybooks

1. **Text-Illustration relationship**
   - moderate – not all print content depicted in illustrations and vice versa

2. **Three-page word count**
   - 25 to 80 words

3. **Story structure**
   - related events in short chains of actions not necessarily connected to other chains
Level 3

1. **Text-Illustration relationship** - weak – story does not depend on illustrations; only key events depicted

2. **Three-page word count** – more than 80 words

3. **Story structure** - traditional ‘once-upon-a-time’ structure with linked problem or initiating event and resolution
In what order?

• Start easy
  – strong text-to-illustration ratio
  – repetitive, rhythmic
  – low language demands

• Principles
  – capture his interest then increase the demands within a book level and/or across levels
  – on ‘off’ days, go back a level or two and/or to an old book ‘friend’
How do I map the curriculum?

• Curriculum map is like a travel itinerary, answering
  – What’s the destination?
  – Where do we start?
  – How will we get there?
  – How will we know we are on the right path?
  – How will we know we got there?
  – Who is coming along? What is the driver schedule (who does what when)?
Mapping (cont’d)

• Why should we bother?

• Maps ensure we
  – address the ‘big ideas’
  – embed principles and standards
  – ensure measurable improvement
  – identify instructional gaps, redundancies
  – ease communication
Mapping (cont’d)

Maps align with the 5 main curriculum features:

• Philosophy
• Principles – EBP, standards, essential questions and understandings
• Goals and desired outcomes
• Strategies – partnerships, teaching approaches, materials, supplemental books
• Decision-making - evaluation
## Example Beginning Map

<table>
<thead>
<tr>
<th>LANGUAGE &amp; COMMUNICATION</th>
<th>Month 1</th>
<th>Month 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content</strong></td>
<td><em>Brown Bear Brown Bear What Do You See?</em></td>
<td><em>Little Old Lady Who Was Not Afraid of Anything</em></td>
</tr>
<tr>
<td><strong>Key Standards</strong></td>
<td>Language Arts Standard 8. Uses listening and speaking strategies for different purposes</td>
<td>Language Arts Standard 8. Uses listening and speaking strategies for different purposes</td>
</tr>
<tr>
<td><strong>Skill</strong></td>
<td>labels animals recognizes colors</td>
<td>labels clothing retells events in order</td>
</tr>
<tr>
<td><strong>Strategies</strong></td>
<td>repetition, rhythm popsicle stick animals</td>
<td>repetition, actions velcroed® book</td>
</tr>
<tr>
<td><strong>Evaluation</strong></td>
<td>observation checklist</td>
<td>observation checklist</td>
</tr>
<tr>
<td><strong>Essential question &amp; understanding</strong></td>
<td>Why should I say the names of things? – everything has a name that tells what it is</td>
<td>Why should I tell things in order? – if I use the same order, other people will understand better</td>
</tr>
<tr>
<td><strong>Core learning outcomes</strong></td>
<td>Expand receptive and expressive vocabulary for objects and attributes</td>
<td>Expand vocabulary … Increase ability to explain sequences of events</td>
</tr>
</tbody>
</table>
### Example: Planning with *Brown Bear, Brown Bear*

<table>
<thead>
<tr>
<th>Vocabulary</th>
<th>Animals</th>
<th>Toys</th>
<th>Food and drink</th>
<th>Clothing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Animals</strong></td>
<td>bear</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>bird</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>(duck)</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>horse</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>(frog)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>cat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>dog</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>sheep</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(goldfish)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>People</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>teacher</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(children)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Action words</strong></td>
<td>see</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>look</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Colors</strong></td>
<td>brown</td>
<td></td>
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<tr>
<td></td>
<td>red</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>yellow</td>
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<tr>
<td></td>
<td>blue</td>
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<tr>
<td></td>
<td>green</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>purple</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>white</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>black</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(uncommon/secondary words are shown in brackets)
Example: Planning with *Brown Bear, Brown Bear*

<table>
<thead>
<tr>
<th>Number/Quantity</th>
<th>Texture/Quality</th>
<th>Time/Speed</th>
<th>Pronouns</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>you, I, me</td>
</tr>
</tbody>
</table>

**School items**

<table>
<thead>
<tr>
<th>Question words</th>
<th>Other(s)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>what</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Phrases and sentences**

what do you see?
I see a ___ looking at me.

**Supplemental Books**

Polar Bear, Polar Bear, What Do You Hear? by Bill Martin and Eric Carle
How do I read

• Before:
  – practice out loud before reading to the child/ren
  – make visuals child/ren can point to and/or manipulate
  – do a little welcome ritual that engages and focuses

• During:
  – read the title of the book
  – don’t worry if they are not looking at you – it’s a process
  – may wish to give the child a sensory ‘toy’ or prop to hold
How do I read (cont’d)

- hold the book so the child can see the pictures and print – don’t flip the book around
- sit at the same level or slightly higher than child
- take your time unless …. develop a ‘feel’ for speed for that child
- don’t be afraid of silence
- don’t change words – at least for a while
- start preparing the child/ren for change to another book in 2, 3 or 4 weeks
How do I read (cont’d)

• Engaging the child
  – vary your intonation, volume and pace
  – provide brief explanations for unfamiliar words
  – point to important pictures
  – run your finger along printed words
  – ‘tap’ out important pictures and words
How do I read? (cont’d)

- provide the child time to process the information and formulate a response
- give dignity and meaning to child responses even if you are not sure
- use visuals and/or communication devices to encourage responding
How do I read? (cont’d)

- once the child becomes familiar with the storybook, go against his expectations
  - uses pauses
  - miss a word
  - insert the ‘wrong’ word
- connect story content to child experiences
- give him some control by letting him
  - turn the page
  - fill in a word or repeated segment
  - hold a cut out character
How do I read? (cont’d)

– repeat and/or extend what he says
– ask questions – but not too many!
  • move on from yes/no and wh-question ‘requests for known information’ as quickly as possible
  • progress toward ‘why’ and ‘how’ questions that encourage going beyond the text and illustrations
How do I read? (cont’d)

Impact of what, where and yes-no questions

Impact of cloze and higher level questions
If you sense ‘boredom’

• Keep your reading style fresh
• Vary the support material
• Vary child’s access to support material
• Allow the child to assume more control
• Introduce supplemental books
Questions or comments?

Contact me any time:
Email: wiredfox@mts.net
Phone: 204-669-7538
Some Resources

Association for Library Service to Children – lists of Caldecott medal and honor children’s books:
http://www.ala.org/ala/mgrps/divs/alsc/awardsgrants/bookmedia/caldecottmedal/caldecotthonors/caldecottmedal.cfm

Association for Library Service to Children – lists of Newbery medal and honor children’s books:
http://www.ala.org/ala/mgrps/divs/alsc/awardsgrants/bookmedia/newberymedal/newberyhonors/newberymedal.cfm

Irma Simonton Black and James H. Black Award for Excellence in Children’s Literature:
http://streetcat.bnkst.edu/HTML/ISB.HTML

Ruth Schwartz Children’s book award:
http://www.resourcelinks.ca/Book%20Awards/RuthSchwartz.htm

Dolly Parton’s Imagination Library:
http://www.imaginationlibrary.com/

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Some Resources (cont’d)

Children's Picture Book Database
at Miami University – database searchable by keyword: http://www.lib.muohio.edu/pictbks/

Author websites with resources:
http://www.janbrett.com/
http://www.eric-carle.com/
http://www.edemberley.com/
http://www.ezra-jack-keats.org/educators/index.html
http://www.lauranumeroff.com/
http://www.audreywood.com/mac_site/clubhouse/clubhouse_page/clubhouse.htm

Resource materials:
http://www.dltk-kids.com/
http://www.underfives.co.uk/
http://songsforteaching.com/
Selected references


Selected references (cont’d)

