

# Creating a *Core* Vocabulary for a Common *Core* Curriculum

ISAAC 2012

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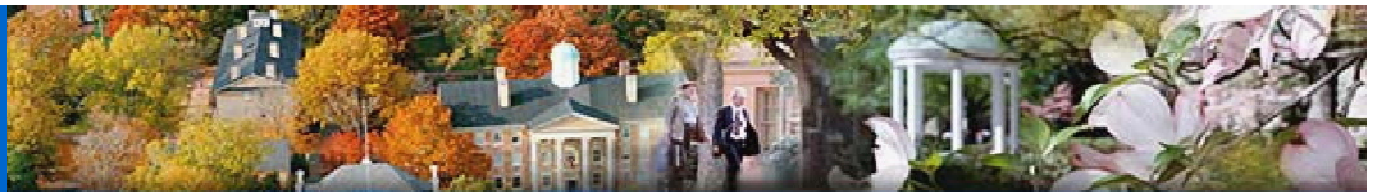
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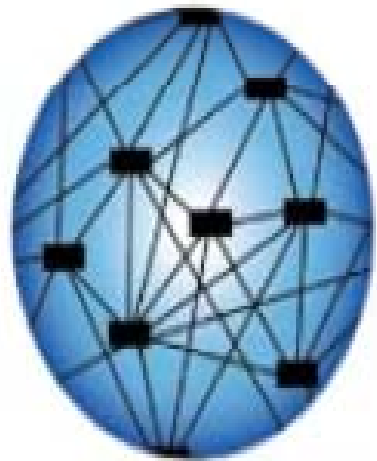
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**DYNAMIC**  
LEARNING MAPS

<http://dynamiclearningmaps.org>

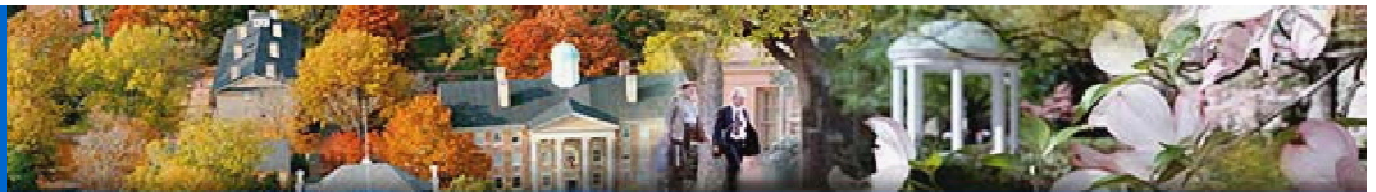
# A Challenge and an Opportunity for Students with Complex Communication Needs (CCN)

- The Common Core State Standards
  - US national standards for English Language Arts and Mathematics
  - Finland, Singapore, and South Korea have employed similar systematic core curriculum standards with good outcomes
  - Focus is on college and career readiness for *all* students
  - Standards require critical thinking, building a foundation of information, and use of known information to develop new knowledge



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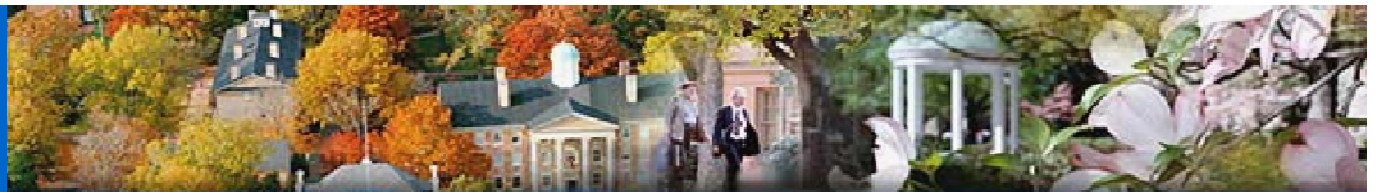
# The Common Core emphasizes:

- Learning that builds over time.
- Application of knowledge and skills.
- Active participation and interaction in learning activities.
- Collaboration and communication.
- Ongoing comprehensive instruction in reading, writing, speaking, listening, and language.



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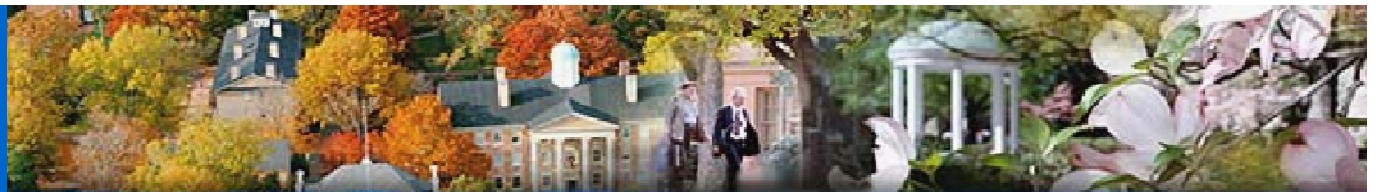
# Challenges for students with CCN

- Access to adequate vocabulary to express new knowledge and increasingly complex ideas.
- The ability to express a variety of communicative functions.
- Adjusting to the communication demands of different contexts.
- Use of the alphabet for reading and spelling.
- Vocabulary that allows expansion of the semantic and syntactic complexity of expressive language.



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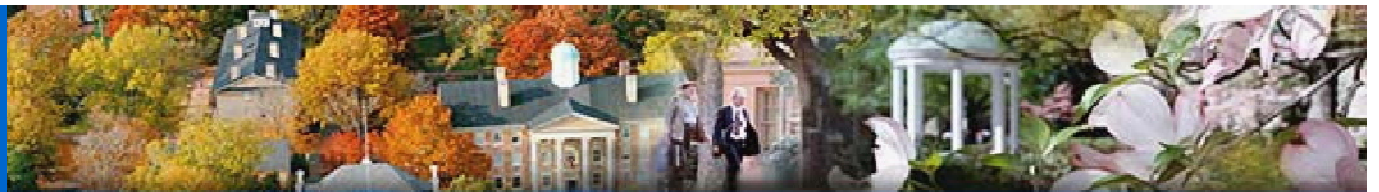


# Core Vocabulary: A Familiar Solution



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# Core Vocabulary Research Studies

## Adults:

- Stuart, Beukelman & King, 1997
- Balandin & Iacono, 1999
- Hill, 2001

## Preschoolers:

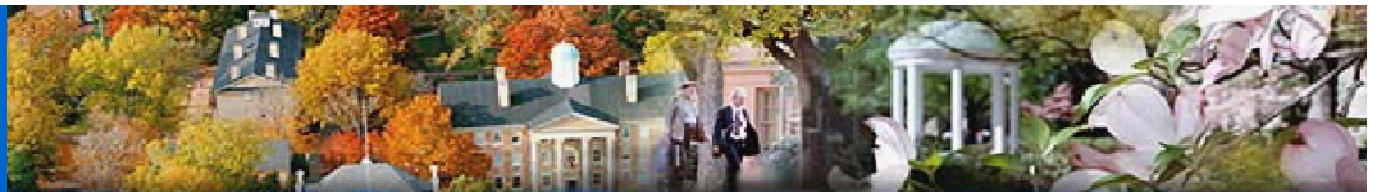
- Beukelman, Jones, & Rowan, 1989
- Banajee, DiCarlo & Stricklin, 2003
- Trembath, Balandin, & Togher, 2007
- Marvin, Beukelman, & Bilyeu, 1994

None of these studies have examined the language of students in academic settings.



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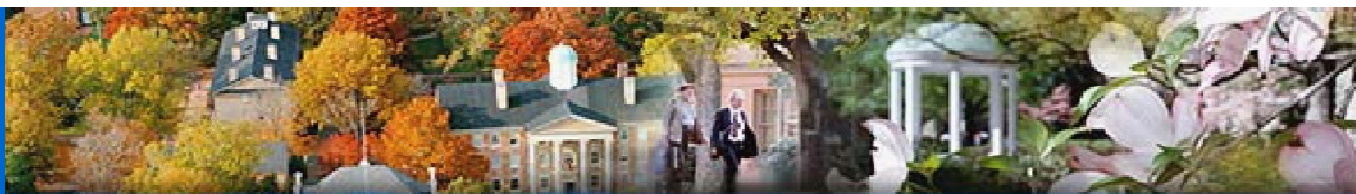
## Oakland Schools (Michigan)

- Observations Before Implementing Core:
  - Inconsistent use of AAC systems
  - Limited use of all communicative functions
  - Heavy focus on fringe or expanded vocabulary rather than core
  - Minimal turn takes during communicative exchanges
  - Reduced communicative opportunities because current vocabulary did not occur frequently enough in classroom activities



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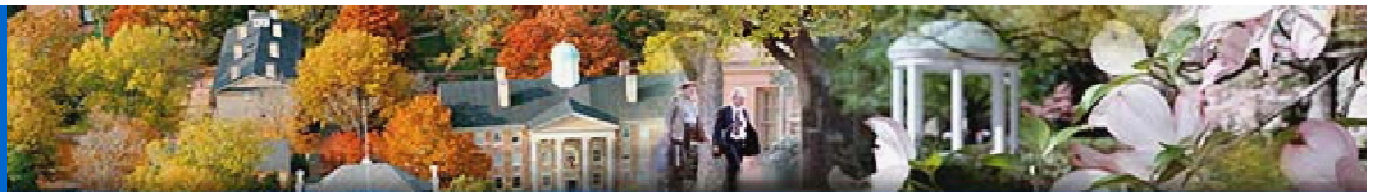
# Oakland Schools

- **GOAL:** Expansion of AAC service delivery model to include:
  - Universal and systematic use of “core vocabulary”
    - On manual display, low tech, or high tech devices
- Chose initial core by reviewing research & current solutions
- Included core for emergent language learners and when updating devices for current users


















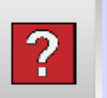
























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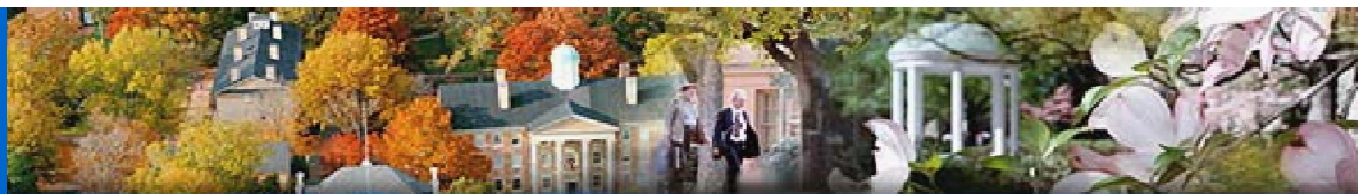
# Oakland's 32 Location Core Vocabulary

|   |  |   |  |   |  |  |   |  |   |
|---|--|---|--|---|--|--|---|--|---|
| I<br>    | want<br>    | go<br>     | make<br>  | no<br>      | more<br>      | that<br>  | hey<br>    | People<br>    | Places<br>       |
| mine<br> | get<br>     | look<br>   | turn<br>  | help<br>    | all gone<br>  | here<br>  | what<br>   | Actions<br>   | Delete<br>       |
| you<br> | like<br>   | open<br>  | do<br>   | stop<br>   | finished<br> | in<br>   | where<br> | Describe<br> | Clear<br>       |
| it<br> | yucky<br> | play<br> | put<br> | again<br> | uh oh<br>   | out<br> | who<br>  | Things<br>  | Quick talk<br> |



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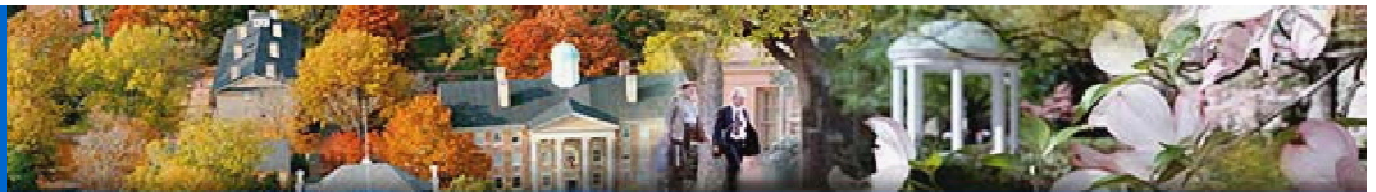
# Observations

- Increased investment by staff (SLPs embraced “core vocabulary”)
- Increased use of AAC systems
  - Multiple word phrases even without expanded vocabulary available
  - Use of words not easily represented and not taught specifically but rather embedded in daily communicative exchanges
- Increased expectations for students to use language in flexible ways
- Focus shifted from the device and programming to the language needed for communication



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# One Classroom Example

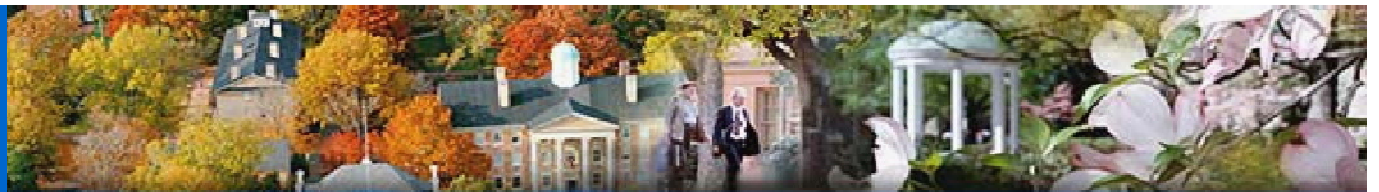
Specifically, ASD classrooms with many students using AAC systems saw change in 3-4 months:

- Increased use of a variety of communicative functions
- Increased use of target vocabulary
- Modeling of language use increased because vocabulary became familiar more quickly to staff



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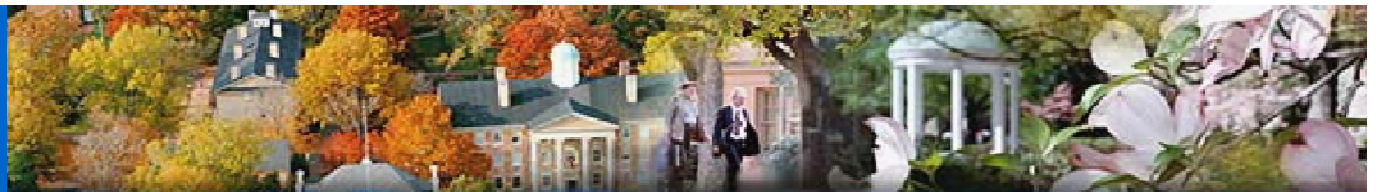


# Learning from Oakland Schools



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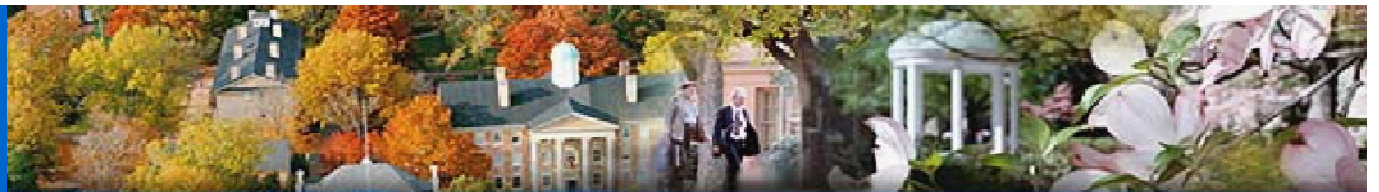
# Our process

- Review of extant core vocabulary research
- Review of several existing core vocabulary sets
- Review of vocabulary used in Common Core
- Review of Clendon's list of 150 most frequently used written words by K-4<sup>th</sup> graders
- U scores
- Provide an alphabet and access to numbers



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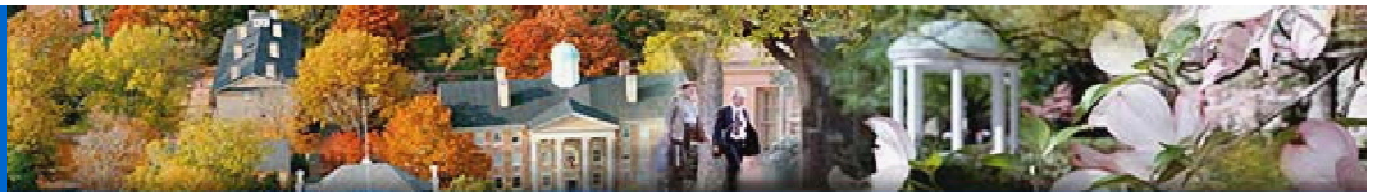
# Core Comparison

|    | A          | B       | C   | D           | E           | F           | G            |
|----|------------|---------|-----|-------------|-------------|-------------|--------------|
| 1  | Vocabulary | U-Score | Sum | PRESCHOOL B | PRESCHOOL T | PRESCHOOL B | ADULT Stuart |
| 2  | you        | 7600    | 24  | 1           | 1           | 1           | 1            |
| 3  | i          | 4443    | 23  | 1           | 1           | 1           | 1            |
| 4  | more       | 2160    | 23  | 1           | 1           | 1           | 1            |
| 5  | go         | 927     | 22  | 1           | 1           | 1           | 1            |
| 6  | help       | 659     | 20  | 1           | 1           | 1           |              |
| 7  | want       | 586     | 21  | 1           | 1           | 1           | 1            |
| 8  | it         | 9386    | 17  | 1           | 1           | 1           | 1            |
| 9  | in         | 19004   | 16  | 1           | 1           | 1           | 1            |
| 10 | like       | 1810    | 16  | 1           | 1           |             | 1            |
| 11 | make       | 1264    | 16  | 1           | 1           |             | 1            |
| 12 | that       | 10184   | 15  | 1           | 1           | 1           | 1            |
| 13 | do         | 2102    | 15  | 1           | 1           |             | 1            |
| 14 | don't      | 601     | 16  |             | 1           |             | 1            |



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# 3 Vocabulary Tiers

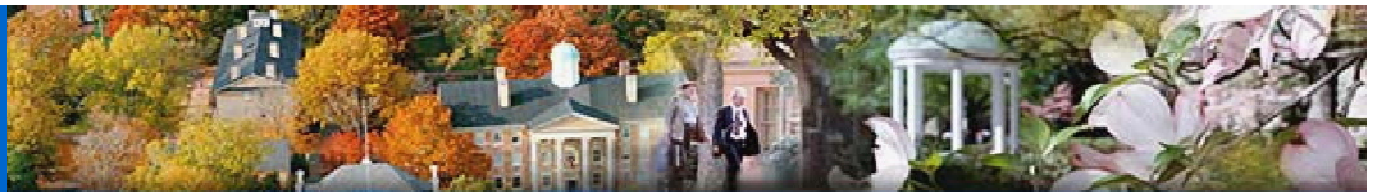
(Beck & McKeown, 1985)

- Tier 1 – The most basic words (e.g., baby, clock, happy, walk).
- Tier 2 – High frequency words for mature language use. These words are found across a variety of domains (e.g., absurd, steep, disaster)
- Tier 3 – Low frequency words used in specific domains (e.g., hemoglobin, lathe, escarpment)



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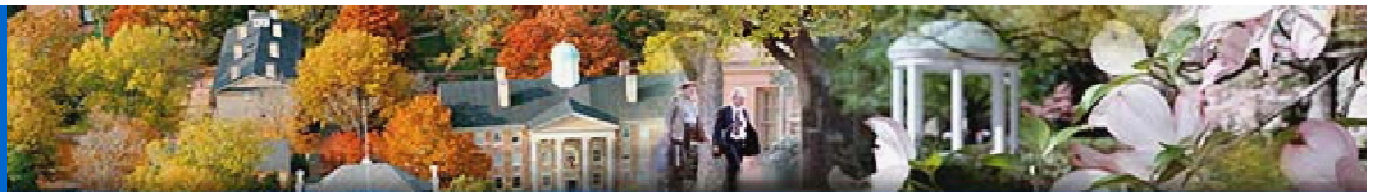
# How much instructional language do students need?

- Character  
e.g., man in book; big, mad woman; sick animal
- Setting  
e.g., hot dry there ; down by water; at home
- Subtraction  
e.g., take from
- Addition  
e.g., put together



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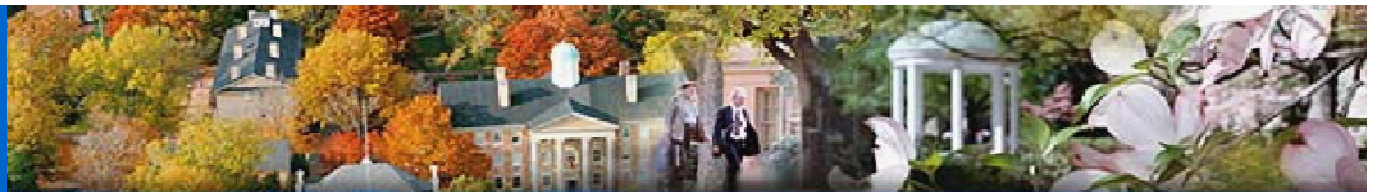
# However: Equal and same are not equivalent concepts

- We will need to add some specific instructional vocabulary.
- Since this is a core vocabulary, these words need to apply across multiple settings (e.g., equal as a math concept, equal as it applies to measurement, equal as applied to fairness, equal as applied to the equal rights for all citizens)



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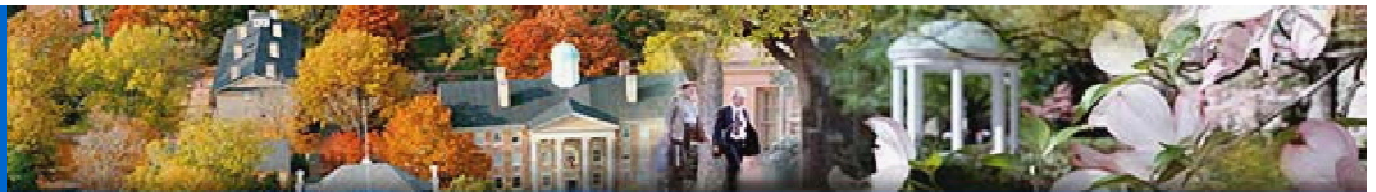
# AAC systems designed to meet the needs of a variety of students

- Static core – 36, 18, 12, 9, & 4 location versions
- Dynamic core – 36, 18, 12, 9, and 4 location versions
- Systems grow within and across grades
- As locations are added to the static core, the relative location of previous icons/messages stays the same.

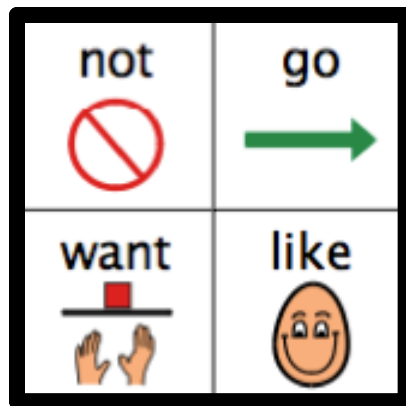


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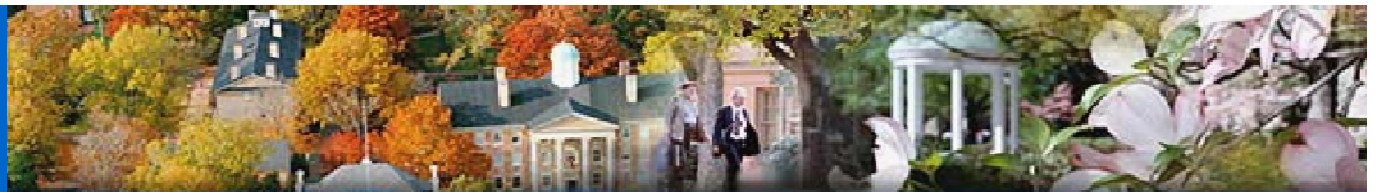


# 4 Location Core





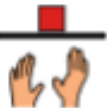


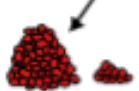



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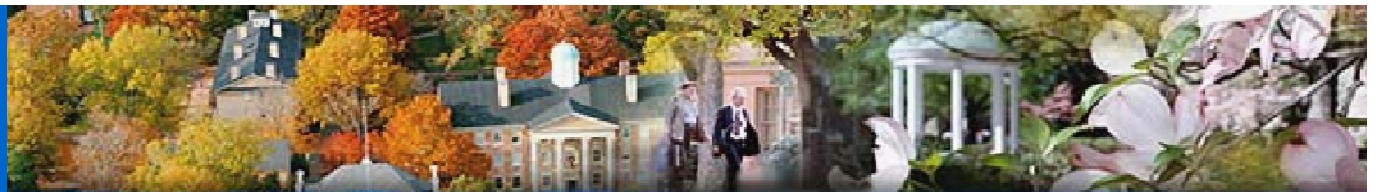
# 9 Location Core

|  |  |  |
|--|--|--|
| I<br>   | not<br>   | go<br>    |
| you<br> | want<br>  | like<br>  |
| it<br> | more<br> | stop<br> |





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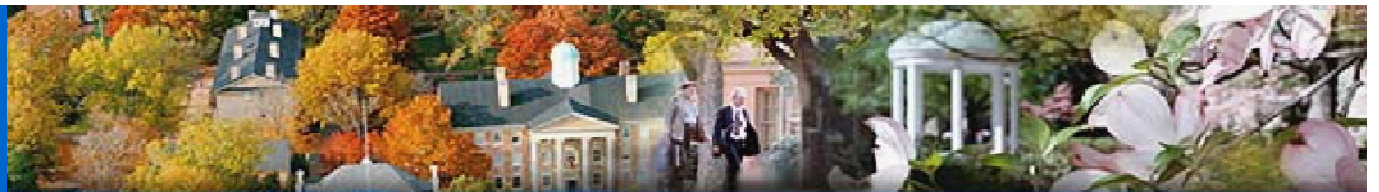
# 12 Location Core

|  |  |  |   |
|--|--|--|---|
| I<br>   | not<br>   | go<br>    | do<br>    |
| you<br> | want<br>  | like<br>  | here<br> |
| it<br> | more<br> | stop<br> | same<br> |








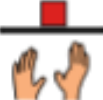








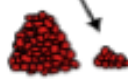



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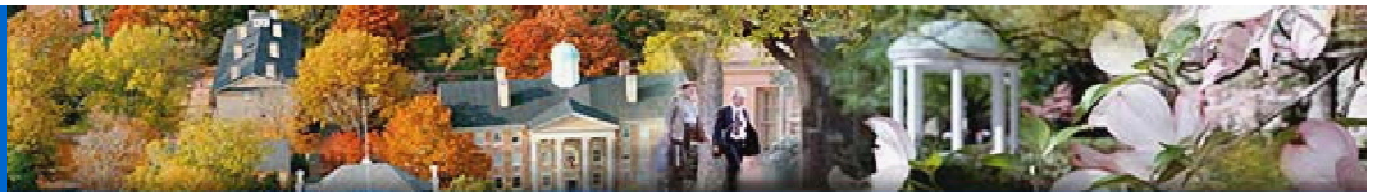
# 18 Location Core

|  |  |  |   |  |   |
|--|--|--|---|--|---|
| I<br>   | not<br>   | go<br>    | do<br>    | help<br>  | put<br>    |
| you<br> | want<br>  | like<br>  | here<br> | know<br>  | take<br>   |
| it<br> | more<br> | stop<br> | same<br> | less<br> | equal<br> |












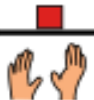






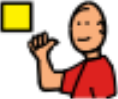






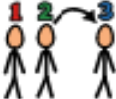











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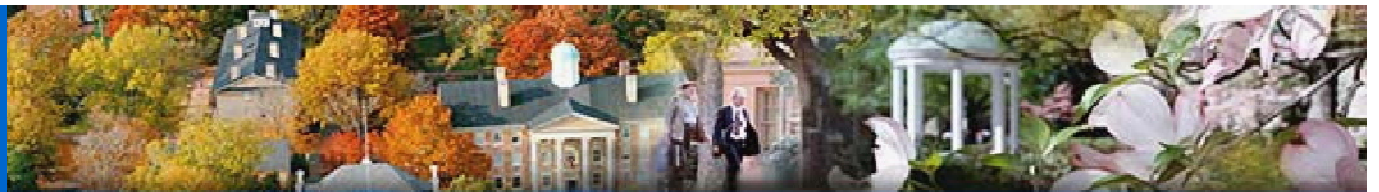
# 36 Location Core

|   |  |  |   |   |   |  |   |  |
|---|--|--|---|---|---|--|---|--|
| he<br>   | I<br>   | not<br>                   | go<br>   | do<br>         | help<br> | put<br>   | can<br>    | awesome<br> |
| she<br>  | you<br> | want<br>                  | like<br> | here<br>       | know<br> | take<br>  | before<br> | no way<br>  |
| mine<br> | it<br>  | more<br>                  | stop<br> | same<br>       | less<br> | equal<br> | next<br>   | after<br>   |
| we<br> | alphabet/<br>number<br>ABC #   | try another<br>page<br> | is<br> | different<br> | in<br> | out<br> | on<br>   | off<br>   |



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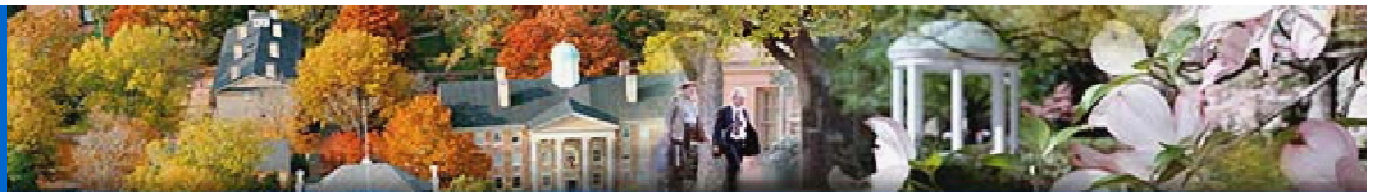
## In the works

- We are still in the process of refining the vocabulary.
- Determining what if any vocabulary gets added at each new grade level
- Adding morphological markers
- Determining how to best provide access to large numbers
- Adding necessary symbols for punctuation and mathematics



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# Our Questions

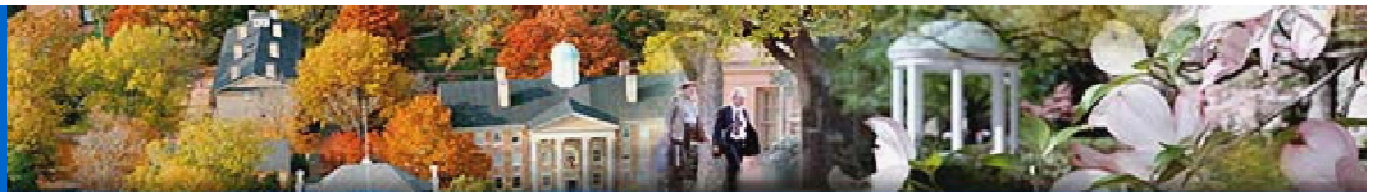
Does this approach:

- Provide vocabulary that allows students to successfully develop language in academic settings?
- Support students in developing increasingly complex language and communication skills over time?
- Are there certain words that are necessary in academic instruction that we have not previously considered in existing core vocabularies?



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# You are cordially invited ...

- You are welcome to join us immediately after this session in Room 310 in the conference hall to discuss “core issues.” We will be there from 2:15 to 3:15 today.
- We are very interested in:
  - Your ideas
  - Your expertise
  - Your experience with students who use core vocabulary



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