**UNIVERSAL DESIGN FOR LEARNING (UDL)**
A Placemat of Core Apps Serving Learning for All 2013
Barbara Welsford, M.Ed., ATP, ADE   bwelsford@eastlink.ca

### Multi-modes of Representation of Information

<table>
<thead>
<tr>
<th>Including students with LD with Reading Difficulties</th>
<th>Including students with LD with Written Output Difficulties</th>
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<td><img src="image1.png" alt="Icons" /></td>
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<th>Including students with LD with Executive Functioning Difficulties</th>
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<td><img src="image3.png" alt="Icons" /></td>
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Multi-modes of Expression

Including students with LD with Reading Difficulties
Including students with LD with Written Output Difficulties

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Overview of UDL
Universal Design for Learning is not only a set of principles but a mindset that all professors, administrators, teachers, resource teachers and support workers are encouraged to adopt to ensure accessibility to learning for ALL students in today's classrooms and beyond. With UDL instructional goals, materials and teaching methods, including assessments, are designed to be flexible and considerate of the diversity of students and their varied learning styles and needs. The essence of UDL lies in 3 main principles including 1) providing multiple means of representation of information to students 2) providing opportunities for multiple means of expression by students and 3) providing multiple means of engagement.

Multiple Means of Representation
Considering the diversity of students in today’s classrooms and our current knowledge of how the brain learns it is evident that a “one size fits all curriculum” is not suitable to meet every student's learning style. Representing information in flexible formats (i.e. digitized text vs fixed print) means that all students can access the information and thus learn in their strongest modality. UDL focusses on the curriculum as having the disability, not the student. Offering digitized text that can be magnified for learners with vision impairment, offering text to speech for students with learning disabilities, electronic books on iPads mounted on wheelchairs for students physical disabilities who can’t manipulate a textbook is some of the first considerations of representing information in a flexible multiple format and a good UDL practice. There are many strategies and checkpoints to consider in relation to the diversity in a teacher’s current classroom that ensures access for all through Universally Designed curriculum and the appropriate strategies, materials, technology and assistive technology.

Multiple Means of Expression
The diversity being met by multiple means of representation also means that students with diverse learning strengths and needs be offered multiple means and options of expressing their knowledge. Some might write a paper while others who are more visual might capture and edit a video, still others might choose to express their knowledge in a Keynote or Powerpoint presentation accessing the iPad or laptop through assistive technology devices and mounting systems if necessary. Offering multiple means of expression and not just assessment through pen and paper means you as the teacher are tapping in to the student's strengths, optimal learning style and learning needs. You as a teacher are also practicing UDL principles and appreciating, celebrating and valuing your student's learning differences.

Multiple Means of Engagement
Student's need to be motivated to learn and then they need to be engaged. Offering a one-sized fits all curriculum focusses on one learning modality and skill set which is clearly not existent in any classroom. Offering different means to engage students whether it be through video, text, audio podcasts, painting, debates, scripting a play and utilizing various Apps (as offered in the placemat) are all ways and means to engage all learners in the classroom, and keep them motivated.

Placemat use and application
The UDL Placemat of Core Apps Serving Learning for All is a starting point to utilizing the exceptional Universally Designed iPad to meet the needs of a wide range of learners. The iPad's versatile settings and wide range of Apps is also an exceptional tool for representing information in a wide variety of formats to meet the needs of all learners. The list of Apps provided are by no means complete and they will, no doubt, be added to and change with time. The App icons provided are clickable links to descriptors of the App and what the App can do for various users. Further explanation of how to use the App in the classroom will be provided in other published documents.

References: for detailed information on UDL, UDL and Assistive Technology go to Cast.org

Please contact me if you have any further information to add or comments to provide on this document.
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