Research Report on the Use and Effectiveness of Accommodations for Adults with Disabilities in Adult Education Centers.

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This research report presents the findings of a survey of adult education centers that was designed to determine the types of accommodations used for adult learners with disabilities and to measure the effectiveness of the accommodations. The report describes a framework for designing strategies to support a learner's performance. In the Ecology of Human Performance (EHP) model, the four accommodation strategy categories used were: (1) establish/restore strategies that address learners' abilities; (2) modify/adapt strategies that address features of the context and the task so they support the person's performance; (3) alter strategies, which address the possible need to find an optimal context for the learner; and (4) prevention strategies, which address the ability to anticipate a problem in the future. Results of the survey indicate that the accommodations used most often tended to be ones that did not require any type of special equipment. Other accommodations tended to be ones that appeared to be the simplest to deliver, most involving modification of the learning task, as opposed to modifying the learning environment. Appendices include tables listing the accommodations used by the adult learning centers; the frequency that each accommodation was used; the satisfaction with the effectiveness of the accommodation; and an accommodations review list. (CR)
Research Report on the Use and Effectiveness of Accommodations for Adults with Disabilities in Adult Education Centers

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Kansas State University

April, 1998

Acknowledgement

This project, "Research and Demonstration of a Model for Successfully Accommodating Adults with Disabilities in Adult Education Programs," was a collaborative effort among faculty and staff at The University of Kansas and Kansas State University. The project was 100% funded by the National Institute on Disability and Rehabilitation Research from September 1, 1995 to August 31, 1998 at $175,000 each year. Research associates included Janis Bulgren, Mary Pat Gilbert, Betty Horton, Kathy Parker, and Cheryl Polson. Warren White and Daryl Mellard were co-principal investigators. Inquiries should be directed to: Jean Hall, Project Coordinator, Institute for Adult Studies, 3061 Dole Center, University of Kansas, Lawrence, KS 66045, (785) 864-4780 or to the project website at www.ku-cr1.org/ias/ias_projects.html.

ACKNOWLEDGEMENT

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Most adult educators want to help all of their students learn effectively and efficiently. Some students, however, present special problems. For example, students with disabilities that interfere with learning are attending adult education centers in increasing numbers and many pose significant challenges (McCormick, 1991). Even knowing their legal responsibilities to provide accommodations for these learners, and despite their best intentions, many adult educators find it difficult to know which accommodations might be effective with specific learners and how effective certain accommodations have been when other adult educators have used them. Given this, staff of a federally funded grant, "Research and Demonstration of a Model for Successfully Accommodating Adults with Disabilities in Adult Education Programs (USDE, #H133A50008)," surveyed adult education centers nationally to determine the types of accommodations adult educators have used and how effective they perceived the accommodations to have been (see Appendix A for a description of the sample of respondents). This document presents the information resulting from this survey. It is hoped that this information will be useful to adult educators as they strive to select effective accommodations for their students with disabilities.

Before presenting the accommodations used in adult education centers it might be helpful to review what an accommodation is. An accommodation is:

any change to a classroom environment or task that permits a qualified student with a disability to participate in the classroom process, to perform the essential tasks of the class, or to enjoy benefits and privileges of classroom participation equal to those enjoyed by adult learners without disabilities. An accommodation is a legally mandated change that creates an equitable opportunity for task completion or environmental access. Further, an accommodation is an individually determined adjustment to a functional need. An accommodation
may include use of equipment or changed environments, procedures, or attitudes (Horton & Hall, 1997, p. 6)

An accommodation is intended to give people with disabilities a fair chance for success, not work that is easier than for others. Guidelines to consider in selecting an accommodation include: (a) is based on documented individual needs; (b) allows the most integrated experience possible; (c) does not compromise the essential requirements of a course or program; (d) does not pose a threat to personal or public safety; (e) does not impose undue financial or administrative burdens on the program; and (f) is not of a personal nature, including personally prescribed devices such as eyeglasses, or services of a personal nature including assistance in eating or toileting (Horton & Hall, 1997, p. 7).

Sometimes it is useful to cluster or organize accommodations around a central theme. Staff of the grant chose to do this using the Ecology of Human Performance (EHP) Model (Dunn, Brown, & McGuignan, 1994). The EHP Model was chosen because it considers the relationships among persons, including what persons want and need to do, and where they need to conduct their activities. According to the EHP, understanding the person also requires understanding the interaction among influences in a person's context; persons influence their context (such as the classroom) and the context influences persons.

The range of a person's performance is determined by considering the person's skills, abilities and experiences and the context within which the person must conduct daily life. A person's performance range can be enhanced or limited by skills and context.

The EHP offers a comprehensive framework for designing strategies (accommodations) to support a learner's performance. This framework encourages learners and educators to consider not only the skills the learner might be able to
develop, but also the skills the learner already has and ways to change tasks and contexts to facilitate successful performance. The EHP does not assume the learner must be "fixed." Rather, the focus is on the transaction between the learner's skills and the resources of the context; any aspect that can be addressed to enable more satisfying performance is a viable strategy.

Within the EHP framework there are four accommodation strategy categories for addressing learners' needs:

   Establish/Restore
   Modify/Adapt
   Alter
   Prevent

1) The **ESTABLISH/RESTORE** strategies address learners' abilities. Here, strategies are designed to take advantage of strengths while working on performance skills that are weak and keep the person from achieving desired outcomes. For example, techniques designed to help a learner improve his or her reading level or learn a new way to solve math problems would fall under this category.

2) The **MODIFY/ADAPT** strategies address features of the context and the task so they support the person's performance. These strategies acknowledge what the person's strengths and needs are and build around them so weak areas do not interfere with performance. For example, if the learner has poor memory, the educator might suggest using post-it notes in books or a desk arrangement that reminds the learner of important information or tasks. These strategies do not fix the memory problem but keep it from interfering with performance.

3) The **ALTER** strategies address the possible need to find an optimal context for the learner. This means the educator and learner would acknowledge the learners' skills and needs as well as the natural features of various contexts and search to find
the best possible match between the two. For example, a learner who is distractible finds she can complete independent work more efficiently in an empty room next to the classroom.

4) The PREVENT strategies address the ability to anticipate a problem in the future. When using this strategy, remember the problem does not currently exist but is likely to occur in the future if no changes are made in the current pattern of living. We do not have to wait for a person to face failure before offering a strategy for making a situation better. For example, a learner with a vision problem who is working on increasing his reading level may need to take a classroom magnifier home with him so he can read his own mail.

In the EHP framework, the person’s specific diagnosis or disability category is not relevant to planning strategies with the person—the focus is on what the person wants and needs to do; in adult basic education, the educator and the learner work together to identify learning strengths and barriers separate from known or unknown disability categories.

The EHP framework can help adult basic educators make systematic decisions about identifying needs and designing strategies that match those needs. The EHP offers adult basic educators a broadly focused but systematic method for planning accommodations to support a person’s performance. This framework also provides a mechanism for making decisions about learners’ goals and skills, tasks they wish to perform, and for considering contextual supports and barriers to successful performance. The EHP enables adult educators to organize their knowledge and expertise to make decisions about which accommodation strategies would work best for the learner (i.e., establish/restore, modify/adapt, alter, and/or prevent) (Mellard, Gilbert, & Parker, 1997, p. 19-22).
How to Use the Tables

When designing the survey, the grant staff was faced with the challenge of adequately describing various disability types without overgeneralizing the disability. For example, simply describing a person as having a learning disability communicates little useful information concerning that person's learning needs because learning disabilities are so varied. Therefore, the staff conducted a literature search to determine common learning and behavioral characteristics of adults with disabilities as well as accommodations that had been used with persons demonstrating the characteristics. Thirteen common characteristics and accompanying accommodations were found. These characteristics and accommodations formed the basis of the survey items.

Adult educators were asked to respond whether they had used any of the listed accommodations with an adult demonstrating each of the learning or behavioral characteristics, and if they had, how effective the accommodation had been (see Appendix B for a copy of the directions to the respondents). Respondents were also offered the opportunity to write in accommodations they had used but which were not on the list.

Each table that follows this narrative is centered around one of the thirteen learning or behavioral characteristics used in the survey. Each has five columns. The first column lists the accommodations found in the literature search in descending order according to the percent of adult educators who had used them. This column can be used to learn which accommodations are most frequently used. The second column gives the value for the percent who had used the accommodation, while the third column lists the frequency upon which this percentage is based. As noted above, when respondents had used any of the accommodations listed, they were asked to respond concerning how effective the accommodation had been. This was
done on a scale of 1 to 9, with 1 being ineffective and 9 being effective. The fourth column gives the computed average effectiveness of each accommodation. The fifth column lists for each accommodation the percent of respondents who rated it higher than 5 on the 9 point effectiveness scale. The last column lists the EHP strategy the accommodation represents.

The reader can use the tables to learn what types of accommodations other adult educators have used with specific types of functional limitations and the perceived effectiveness of the accommodations. The reader should remember that students who demonstrate some similar behaviors, such as those in the following tables, may still have vastly different learning and accommodation needs. The tables are simply guides to help adult educators narrow the search for effective accommodations. In addition to considering accommodations based on their effectiveness when used by other adult educators, the reader should also consider their selection based on the EHP framework discussed above. It has proven valuable to adult educators

The reader will probably notice several things about the data in the tables. First, in general, the accommodations used most often tend to be ones that do not require any type of special equipment. Second, the accommodations used more often tend to be ones that at least appear to be the simplest to deliver, most involving modifying the learning task, as opposed to modifying the learning environment. Notice, however, that this does not seem to adversely effect how effective the accommodations are perceived to be. It may be that the simplism accommodations are the most effective. Other resources exist to help adult educators work with adults with disabilities. For example, the "Research and Demonstration of a Model for Successfully Accommodating Adults with Disabilities in Adult Education Programs" grant has also published the following resources:
Handbook of Rights and Responsibilities of An Adult Learner with a Disability;
Adult Educator’s Procedural Guide to Accommodating Learners with Disabilities; and a
Compendium of Materials and Resources.

See Appendix C for a further list of accommodations prepared by staff of the grant.
References


Appendix A
Table 1

**Accommodations for Learners Who Are Overly Active and Have Difficulty Sitting and Working Quietly**

<table>
<thead>
<tr>
<th>Accommodation</th>
<th>Percent Used</th>
<th>N*</th>
<th>Average Effectiveness**</th>
<th>Percent Effective***</th>
<th>EHP Strategy****</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid lengthy periods of desk work</td>
<td>85.6</td>
<td>1152</td>
<td>6.67</td>
<td>60.6</td>
<td>P</td>
</tr>
<tr>
<td>Organize work area so it is free from distractions</td>
<td>84.3</td>
<td>1115</td>
<td>5.95</td>
<td>43.3</td>
<td>P or MT</td>
</tr>
<tr>
<td>Provide a carrel or quiet corner</td>
<td>70.2</td>
<td>1065</td>
<td>6.29</td>
<td>52.2</td>
<td>MC</td>
</tr>
<tr>
<td>Use timer</td>
<td>14.4</td>
<td>719</td>
<td>5.40</td>
<td>38.5</td>
<td>MT</td>
</tr>
<tr>
<td>Use sound-absorbing surfaces</td>
<td>11.8</td>
<td>690</td>
<td>4.99</td>
<td>27.5</td>
<td>P</td>
</tr>
<tr>
<td>Use white noise</td>
<td>5.9</td>
<td>627</td>
<td>4.85</td>
<td>36.0</td>
<td>P</td>
</tr>
</tbody>
</table>

* Note: Number of responses to each accommodation.

** Note: Effectiveness scale goes from 1 to 9, with 1 being ineffective and 9 being effective.

*** Note: The % of respondents using this accommodation who rated it higher than 5 on the effectiveness scale.

**** Ecology of Human Performance (P = Prevent, MT = Modify Task, MC = Modify Context, A = Alter, ER = Establish Restore)
Table 2

Accommodations for Learners Who Are Very Distractible, Daydream or Cease Activity Before Completion and Have Trouble Staying on Tasks

<table>
<thead>
<tr>
<th>Accommodation</th>
<th>Percent Used</th>
<th>N</th>
<th>Average Effectiveness**</th>
<th>Percent Effective***</th>
<th>EHP Strategy****</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide checklists for completed assignments and those waiting for attention</td>
<td>85.6</td>
<td>1152</td>
<td>6.28</td>
<td>51.4</td>
<td>MT</td>
</tr>
<tr>
<td>Provide specified time frame for task completion</td>
<td>68.3</td>
<td>1054</td>
<td>5.65</td>
<td>35.8</td>
<td>MT</td>
</tr>
<tr>
<td>Use carrel</td>
<td>35.0</td>
<td>809</td>
<td>5.93</td>
<td>44.2</td>
<td>A</td>
</tr>
<tr>
<td>Use card with a window cut into the frame while reading</td>
<td>13.7</td>
<td>696</td>
<td>5.68</td>
<td>41.7</td>
<td>MT</td>
</tr>
</tbody>
</table>

* Note: Number of responses to each accommodation.
** Note: Effectiveness scale goes from 1 to 9, with 1 being ineffective and 9 being effective.
*** Note: The % of respondents using this accommodation who rated it higher than 5 on the effectiveness scale.
**** Ecology of Human Performance (P = Prevent, MT = Modify Task, MC = Modify Context, A = Alter, ER = Establish Restore)
### Table 3

**Accommodations for Learners Who Have Difficulty Paying Attention to Oral Directions or the Spoken Word**

<table>
<thead>
<tr>
<th>Accommodation</th>
<th>Percent Used</th>
<th>N*</th>
<th>Average Effectiveness**</th>
<th>Percent Effective***</th>
<th>EHP Strategy****</th>
</tr>
</thead>
<tbody>
<tr>
<td>Give explanations in small, distinct steps</td>
<td>95.5</td>
<td>1216</td>
<td>6.72</td>
<td>60.8</td>
<td>MT</td>
</tr>
<tr>
<td>Provide written copy to oral directions and lectures</td>
<td>70.6</td>
<td>1048</td>
<td>6.27</td>
<td>49.2</td>
<td>MT</td>
</tr>
<tr>
<td>Have learner repeat directions orally, or use a written clue</td>
<td>68.6</td>
<td>1029</td>
<td>6.58</td>
<td>58.8</td>
<td>MT</td>
</tr>
<tr>
<td>Provide visual cues on chalkboard or overhead</td>
<td>68.5</td>
<td>1035</td>
<td>6.65</td>
<td>59.0</td>
<td>MT</td>
</tr>
<tr>
<td>Provide study buddy</td>
<td>47.9</td>
<td>895</td>
<td>6.58</td>
<td>57.0</td>
<td>P</td>
</tr>
<tr>
<td>Provide tape recorder</td>
<td>38.6</td>
<td>840</td>
<td>5.96</td>
<td>44.9</td>
<td>MT</td>
</tr>
</tbody>
</table>

* Note: Number of responses to each accommodation.

** Note: Effectiveness scale goes from 1 to 9, with 1 being ineffective and 9 being effective.

*** Note: The % of respondents using this accommodation who rated it higher than 5 on the effectiveness scale.

**** Ecology of Human Performance (P = Prevent, MT = Modify Task, MC = Modify Context, A = Alter, ER = Establish Restore)
Table 4

Accommodations for Learners Who Have Difficulty Getting Started, Often Delaying and Procrastinating

<table>
<thead>
<tr>
<th>Accommodation</th>
<th>Percent Used</th>
<th>N*</th>
<th>Average Effectiveness**</th>
<th>Percent Effective***</th>
<th>EHP Strategy****</th>
</tr>
</thead>
<tbody>
<tr>
<td>Break work into smaller amounts</td>
<td>84.1</td>
<td>1130</td>
<td>6.65</td>
<td>59.6</td>
<td>MT</td>
</tr>
<tr>
<td>Help learner set time goals for each task</td>
<td>67.2</td>
<td>1029</td>
<td>6.20</td>
<td>46.6</td>
<td>P</td>
</tr>
<tr>
<td>Help learner develop a checklist for each step of task</td>
<td>50.8</td>
<td>919</td>
<td>6.27</td>
<td>53.7</td>
<td>MT</td>
</tr>
<tr>
<td>Assign peer coaches</td>
<td>32.9</td>
<td>800</td>
<td>6.52</td>
<td>57.7</td>
<td>MT</td>
</tr>
<tr>
<td>Use a timer</td>
<td>17.0</td>
<td>711</td>
<td>5.87</td>
<td>46.8</td>
<td>MT</td>
</tr>
</tbody>
</table>

* Note: Number of responses to each accommodation.
** Note: Effectiveness scale goes from 1 to 9, with 1 being ineffective and 9 being effective.
*** Note: The % of respondents using this accommodation who rated it higher than 5 on the effectiveness scale.
**** Ecology of Human Performance (P = Prevent, MT = Modify Task, MC = Modify Context, A = Alter, ER = Establish Restore)
Table 5

Accommodations for Learners Who Have Difficulty Using the Computer

<table>
<thead>
<tr>
<th>Accommodation</th>
<th>Percent Used</th>
<th>N*</th>
<th>Average Effectiveness**</th>
<th>Percent Effective***</th>
<th>EHP Strategy****</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use mouse, not keyboard</td>
<td>57.7</td>
<td>802</td>
<td>6.41</td>
<td>52.7</td>
<td>MT</td>
</tr>
<tr>
<td>Screen to cut glare</td>
<td>31.0</td>
<td>661</td>
<td>6.60</td>
<td>60.8</td>
<td>P</td>
</tr>
<tr>
<td>Table height adjustment</td>
<td>30.4</td>
<td>650</td>
<td>7.14</td>
<td>67.1</td>
<td>MT</td>
</tr>
<tr>
<td>Larger display</td>
<td>28.8</td>
<td>641</td>
<td>6.87</td>
<td>67.6</td>
<td>MT</td>
</tr>
<tr>
<td>Software for sequential, not simultaneous, key strokes</td>
<td>25.4</td>
<td>612</td>
<td>6.16</td>
<td>49.6</td>
<td>MT</td>
</tr>
<tr>
<td>Computer in study carrel</td>
<td>22.3</td>
<td>612</td>
<td>6.50</td>
<td>54.8</td>
<td>ME</td>
</tr>
<tr>
<td>Speech recognition</td>
<td>18.8</td>
<td>581</td>
<td>6.20</td>
<td>51.5</td>
<td>MT</td>
</tr>
<tr>
<td>Head pointer</td>
<td>3.6</td>
<td>512</td>
<td>5.24</td>
<td>51.7</td>
<td>MT</td>
</tr>
</tbody>
</table>

* Note: Number of responses to each accommodation.
** Note: Effectiveness scale goes from 1 to 9, with 1 being ineffective and 9 being effective.
*** Note: The % of respondents using this accommodation who rated it higher than 5 on the effectiveness scale.
**** Ecology of Human Performance (P = Prevent, MT = Modify Task, MC = Modify Context, A = Alter, ER = Establish Restore)
Table 6

Accommodations for Learners Who Have Difficulty Hearing

<table>
<thead>
<tr>
<th>Accommodation</th>
<th>Percent Used</th>
<th>N*</th>
<th>Average Effectiveness**</th>
<th>Percent Effective***</th>
<th>EHP Strategy****</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual clues</td>
<td>70.6</td>
<td>750</td>
<td>7.20</td>
<td>72.1</td>
<td>MT</td>
</tr>
<tr>
<td>Placement in room</td>
<td>68.9</td>
<td>741</td>
<td>7.03</td>
<td>69.1</td>
<td>MC</td>
</tr>
<tr>
<td>Organizational aids (i.e., cue cards)</td>
<td>45.2</td>
<td>622</td>
<td>6.90</td>
<td>67.7</td>
<td>MT</td>
</tr>
<tr>
<td>Tactile clues</td>
<td>43.4</td>
<td>611</td>
<td>6.84</td>
<td>64.0</td>
<td>MT</td>
</tr>
<tr>
<td>Interpreter</td>
<td>20.8</td>
<td>519</td>
<td>7.18</td>
<td>71.9</td>
<td>MC</td>
</tr>
<tr>
<td>Speech amplification device</td>
<td>15.5</td>
<td>513</td>
<td>6.30</td>
<td>62.0</td>
<td>MC</td>
</tr>
<tr>
<td>Compressed speech</td>
<td>4.8</td>
<td>438</td>
<td>5.07</td>
<td>20.0</td>
<td>MC</td>
</tr>
</tbody>
</table>

* Note: Number of responses to each accommodation.
** Note: Effectiveness scale goes from 1 to 9, with 1 being ineffective and 9 being effective.
*** Note: The % of respondents using this accommodation who rated it higher than 5 on the effectiveness scale.
**** Ecology of Human Performance (P = Prevent, MT = Modify Task, MC = Modify Context, A = Alter, ER = Establish Restore)
Table 7

Accommodations for Learners Who Have Difficulty Expressing Themselves Verbally

<table>
<thead>
<tr>
<th>Accommodation</th>
<th>Percent Used</th>
<th>N*</th>
<th>Average Effectiveness**</th>
<th>Percent Effective***</th>
<th>EHP Strategy****</th>
</tr>
</thead>
<tbody>
<tr>
<td>Give extra response time</td>
<td>94.8</td>
<td>1350</td>
<td>6.64</td>
<td>62.8</td>
<td>MT</td>
</tr>
<tr>
<td>Respond in a written format</td>
<td>62.4</td>
<td>1145</td>
<td>5.82</td>
<td>41.0</td>
<td>MT</td>
</tr>
<tr>
<td>Accept alternative forms of information sharing (demonstrations, taped instead of oral report)</td>
<td>59.0</td>
<td>1091</td>
<td>6.19</td>
<td>49.5</td>
<td>MT</td>
</tr>
<tr>
<td>Organizational aids (i.e., cue cards)</td>
<td>54.8</td>
<td>1082</td>
<td>6.43</td>
<td>55.4</td>
<td>MT</td>
</tr>
<tr>
<td>Computer synthesized speech</td>
<td>13.8</td>
<td>793</td>
<td>6.52</td>
<td>61.0</td>
<td>MT</td>
</tr>
<tr>
<td>Communication board</td>
<td>13.6</td>
<td>784</td>
<td>6.14</td>
<td>54.4</td>
<td>MT</td>
</tr>
<tr>
<td>Sign language</td>
<td>12.7</td>
<td>779</td>
<td>6.43</td>
<td>56.2</td>
<td>ER - if student is learning; MC - if student is using</td>
</tr>
</tbody>
</table>

* Note: Number of responses to each accommodation.

** Note: Effectiveness scale goes from 1 to 9, with 1 being ineffective and 9 being effective.

*** Note: The % of respondents using this accommodation who rated it higher than 5 on the effectiveness scale.

**** Ecology of Human Performance (P = Prevent, MT = Modify Task, MC = Modify Context, A = Alter, ER = Establish Restore)
Table 8

**Accommodations for Learners Who Have Difficulty**

**Reading Class Material and/or Books**

<table>
<thead>
<tr>
<th>Accommodation</th>
<th>Percent Used</th>
<th>N</th>
<th>Average Effectiveness**</th>
<th>Percent Effective***</th>
<th>EHP Strategy****</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow extra time</td>
<td>96.8</td>
<td>1433</td>
<td>7.18</td>
<td>72.6</td>
<td>MT</td>
</tr>
<tr>
<td>Provide shorter assignments</td>
<td>82.1</td>
<td>1315</td>
<td>6.88</td>
<td>66.7</td>
<td>MT</td>
</tr>
<tr>
<td>Allow another learner to read material to learner before the learner is required to read</td>
<td>49.1</td>
<td>1044</td>
<td>6.65</td>
<td>59.9</td>
<td>MT</td>
</tr>
<tr>
<td>Use large print</td>
<td>43.1</td>
<td>1019</td>
<td>6.79</td>
<td>65.3</td>
<td>MT</td>
</tr>
<tr>
<td>Tape the material and allow reading along</td>
<td>40.4</td>
<td>983</td>
<td>6.86</td>
<td>62.8</td>
<td>MT</td>
</tr>
<tr>
<td>Rewrite the student's text</td>
<td>27.9</td>
<td>907</td>
<td>6.49</td>
<td>59.0</td>
<td>MT</td>
</tr>
</tbody>
</table>

* Note: Number of responses to each accommodation.

** Note: Effectiveness scale goes from 1 to 9, with 1 being ineffective and 9 being effective.

*** Note: The % of respondents using this accommodation who rated it higher than 5 on the effectiveness scale.

**** Ecology of Human Performance (P = Prevent, MT = Modify Task, MC = Modify Context, A = Alter, ER = Establish Restore)
Table 9

Accommodations for Learners Who Have Difficulty Spelling

<table>
<thead>
<tr>
<th>Accommodation</th>
<th>Percent Used</th>
<th>N*</th>
<th>Average Effectiveness**</th>
<th>Percent Effective***</th>
<th>EHP Strategy****</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide dictionary</td>
<td>89.0</td>
<td>1374</td>
<td>5.80</td>
<td>41.5</td>
<td>MT</td>
</tr>
<tr>
<td>Allow use of electronic spell checker</td>
<td>37.6</td>
<td>983</td>
<td>6.93</td>
<td>68.5</td>
<td>MT</td>
</tr>
</tbody>
</table>

* Note: Number of responses to each accommodation.
** Note: Effectiveness scale goes from 1 to 9, with 1 being ineffective and 9 being effective.
*** Note: The % of respondents using this accommodation who rated it higher than 5 on the effectiveness scale.
**** Ecology of Human Performance (P = Prevent, MT = Modify Task, MC = Modify Context, A = Alter, ER = Establish Restore)
Table 10

Accommodations for Adults Who Have Difficulty
Expressing Themselves in Writing

<table>
<thead>
<tr>
<th>Accommodation</th>
<th>Percent Used</th>
<th>N*</th>
<th>Average Effectiveness**</th>
<th>Percent Effective***</th>
<th>EHP Strategy****</th>
</tr>
</thead>
<tbody>
<tr>
<td>Give extra time for written assignments and shorten the amount required if possible</td>
<td>89.9</td>
<td>1369</td>
<td>6.78</td>
<td>61.8</td>
<td>MT</td>
</tr>
<tr>
<td>Have the learner prepare an outline, brief notes, or short phrases to show knowledge</td>
<td>61.7</td>
<td>1143</td>
<td>6.30</td>
<td>52.4</td>
<td>MT</td>
</tr>
<tr>
<td>Accept alternative forms of reporting (i.e., oral report, tape recorders, debates)</td>
<td>54.9</td>
<td>1078</td>
<td>6.67</td>
<td>61.9</td>
<td>MT</td>
</tr>
<tr>
<td>Allow student to dictate work to someone else</td>
<td>41.0</td>
<td>997</td>
<td>6.63</td>
<td>59.9</td>
<td>MT</td>
</tr>
</tbody>
</table>

* Note: Number of responses to each accommodation.
** Note: Effectiveness scale goes from 1 to 9, with 1 being ineffective and 9 being effective.
*** Note: The % of respondents using this accommodation who rated it higher than 5 on the effectiveness scale.
**** Ecology of Human Performance (P = Prevent, MT = Modify Task, MC = Modify Context, A = Alter, ER = Establish Restore)
Table 11

Accommodations for Adults Who Have Difficulty Solving Math Problems

<table>
<thead>
<tr>
<th>Accommodation</th>
<th>Percent Used</th>
<th>N*</th>
<th>Average Effectiveness**</th>
<th>Percent Effective***</th>
<th>EHP Strategy****</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased time</td>
<td>93.7</td>
<td>1412</td>
<td>6.93</td>
<td>67.3</td>
<td>MT</td>
</tr>
<tr>
<td>Smaller tasks</td>
<td>82.5</td>
<td>1301</td>
<td>6.93</td>
<td>65.8</td>
<td>MT</td>
</tr>
<tr>
<td>Calculator</td>
<td>69.2</td>
<td>1223</td>
<td>6.69</td>
<td>60.0</td>
<td>MT</td>
</tr>
<tr>
<td>Computer software</td>
<td>68.6</td>
<td>1214</td>
<td>6.84</td>
<td>66.0</td>
<td>MT</td>
</tr>
<tr>
<td>Manipulatives</td>
<td>67.3</td>
<td>1191</td>
<td>6.74</td>
<td>59.1</td>
<td>MT</td>
</tr>
<tr>
<td>Graph paper</td>
<td>31.3</td>
<td>927</td>
<td>6.23</td>
<td>50.0</td>
<td>MT</td>
</tr>
<tr>
<td>Abacus</td>
<td>6.4</td>
<td>753</td>
<td>5.22</td>
<td>37.9</td>
<td>MT</td>
</tr>
</tbody>
</table>

* Note: Number of responses to each accommodation.
** Note: Effectiveness scale goes from 1 to 9, with 1 being ineffective and 9 being effective.
*** Note: The % of respondents using this accommodation who rated it higher than 5 on the effectiveness scale.
**** Ecology of Human Performance (P = Prevent, MT = Modify Task, MC = Modify Context, A = Alter, ER = Establish Restore)
Table 12

Accommodations for Adults Who Have Difficulty
Taking Tests

<table>
<thead>
<tr>
<th>Accommodation</th>
<th>Percent Used</th>
<th>N*</th>
<th>Average Effectiveness**</th>
<th>Percent Effective***</th>
<th>EHP Strategy****</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased time</td>
<td>89.3</td>
<td>1374</td>
<td>7.14</td>
<td>70.7</td>
<td>MT</td>
</tr>
<tr>
<td>Separate testing area</td>
<td>72.7</td>
<td>1250</td>
<td>7.09</td>
<td>69.5</td>
<td>MC</td>
</tr>
<tr>
<td>Shortened test periods</td>
<td>53.4</td>
<td>1089</td>
<td>7.00</td>
<td>68.7</td>
<td>MT</td>
</tr>
<tr>
<td>Reader</td>
<td>38.5</td>
<td>965</td>
<td>7.26</td>
<td>75.2</td>
<td>MT</td>
</tr>
<tr>
<td>Large print</td>
<td>35.9</td>
<td>950</td>
<td>7.06</td>
<td>72.2</td>
<td>MT</td>
</tr>
<tr>
<td>Computer administration</td>
<td>33.8</td>
<td>919</td>
<td>6.62</td>
<td>62.6</td>
<td>MT</td>
</tr>
<tr>
<td>Audio tape presentation of items</td>
<td>26.7</td>
<td>874</td>
<td>7.04</td>
<td>70.6</td>
<td>MT</td>
</tr>
<tr>
<td>Spell checker</td>
<td>21.9</td>
<td>846</td>
<td>6.89</td>
<td>73.0</td>
<td>MT</td>
</tr>
<tr>
<td>Scribe/recorder</td>
<td>20.1</td>
<td>832</td>
<td>7.20</td>
<td>75.0</td>
<td>MT</td>
</tr>
<tr>
<td>Use of record booklet vs. separate answer sheet</td>
<td>17.6</td>
<td>810</td>
<td>6.71</td>
<td>65.4</td>
<td>MT</td>
</tr>
<tr>
<td>Braille</td>
<td>3.6</td>
<td>715</td>
<td>6.15</td>
<td>67.6</td>
<td>ER or MT</td>
</tr>
</tbody>
</table>

* Note: Number of responses to each accommodation.

** Note: Effectiveness scale goes from 1 to 9, with 1 being ineffective and 9 being effective.

*** Note: The % of respondents using this accommodation who rated it higher than 5 on the effectiveness scale.

**** Ecology of Human Performance (P = Prevent, MT = Modify Task, MC = Modify Context, A = Alter, ER = Establish Restore)
Table 13

**Accommodations for Adults Who Have Difficulty Writing Legibly**

<table>
<thead>
<tr>
<th>Accommodation</th>
<th>Percent Used</th>
<th>N*</th>
<th>Average Effectiveness**</th>
<th>Percent Effective***</th>
<th>EHP Strategy****</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extended time for completion</td>
<td>86.7</td>
<td>1320</td>
<td>6.93</td>
<td>65.0</td>
<td>MT</td>
</tr>
<tr>
<td>Avoid setting time limits</td>
<td>79.5</td>
<td>1244</td>
<td>6.69</td>
<td>58.5</td>
<td>MT</td>
</tr>
<tr>
<td>Use manuscript paper or lined paper</td>
<td>75.4</td>
<td>1228</td>
<td>6.44</td>
<td>54.6</td>
<td>MT</td>
</tr>
<tr>
<td>Shortened work intervals</td>
<td>65.9</td>
<td>1166</td>
<td>6.67</td>
<td>59.0</td>
<td>P</td>
</tr>
<tr>
<td>Allow learner to type or use word processing</td>
<td>64.2</td>
<td>1123</td>
<td>7.05</td>
<td>67.7</td>
<td>MT</td>
</tr>
<tr>
<td>Allow student to copy from near point instead of copying from board</td>
<td>61.8</td>
<td>1097</td>
<td>6.66</td>
<td>59.8</td>
<td>MT</td>
</tr>
<tr>
<td>Provide an alphabet chart</td>
<td>51.4</td>
<td>1054</td>
<td>6.44</td>
<td>50.6</td>
<td>MT</td>
</tr>
<tr>
<td>Use wideline paper</td>
<td>45.3</td>
<td>995</td>
<td>6.24</td>
<td>44.7</td>
<td>MT</td>
</tr>
<tr>
<td>Have learner dictate to someone else</td>
<td>35.9</td>
<td>946</td>
<td>7.02</td>
<td>67.8</td>
<td>MT</td>
</tr>
</tbody>
</table>

Table continues
Table 13 (continued)

Accommodations for Adults Who Have Difficulty Writing Legibly

<table>
<thead>
<tr>
<th>Accommodation</th>
<th>Percent Used</th>
<th>N</th>
<th>Average Effectiveness</th>
<th>Percent Effective</th>
<th>EHP Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use graph paper to help space letters</td>
<td>19.2</td>
<td>812</td>
<td>6.35</td>
<td>51.4</td>
<td>MT</td>
</tr>
<tr>
<td>Adapted work surface</td>
<td>17.9</td>
<td>802</td>
<td>6.58</td>
<td>54.9</td>
<td>MT</td>
</tr>
<tr>
<td>Use adapted pencil or pen for better grip</td>
<td>15.7</td>
<td>798</td>
<td>6.01</td>
<td>46.2</td>
<td>MT</td>
</tr>
<tr>
<td>Use oversized pencil</td>
<td>13.4</td>
<td>780</td>
<td>5.77</td>
<td>41.0</td>
<td>MT</td>
</tr>
<tr>
<td>Use a paper stabilizing device</td>
<td>12.6</td>
<td>760</td>
<td>6.39</td>
<td>52.9</td>
<td>MT</td>
</tr>
<tr>
<td>Use universal cuff</td>
<td>3.5</td>
<td>683</td>
<td>5.14</td>
<td>35.7</td>
<td>MT</td>
</tr>
<tr>
<td>Use textured paper (raised lines)</td>
<td>2.2</td>
<td>694</td>
<td>5.69</td>
<td>26.9</td>
<td>MT</td>
</tr>
</tbody>
</table>

* Note: Number of responses to each accommodation.
** Note: Effectiveness scale goes from 1 to 9, with 1 being ineffective and 9 being effective.
*** Note: The % of respondents using this accommodation who rated it higher than 5 on the effectiveness scale.
**** Ecology of Human Performance (P = Prevent, MT = Modify Task, MC = Modify Context, A = Alter, ER = Establish Restore)
Example and Directions

Now we would like to ask you to think about the types of accommodations you provide for adults with disabilities. We are defining an accommodation as a legally mandated change that creates an equitable opportunity for task completion or environmental access. Further, an accommodation is an individually determined adjustment to a functional need. Such an accommodation is required across settings for the same type of tasks. An accommodation may include use of equipment or changes in environments, procedures, or attitudes.

Picture in your mind the last three adult learners with disabilities in your program who demonstrated the behaviors listed in Questions Q6 - Q11 (if you have worked with fewer than three, just picture the ones you worked with). The three learners chosen for each question will most likely be different. These three learners will be represented by the letters “A,” “B,” and “C,” below. For each learner we have two questions:

1. Did you use the accommodation with any of these learners? This answer is recorded in the column labeled “Used?” by circling yes or no for each learner.

2. How effective was the accommodation? This answer is recorded by circling the degree of effectiveness from 1 (Ineffective) to 9 (Effective).

In the example below, the respondent thought of the last three learners with disabilities who have difficulty keeping track of materials and assignments. Three possible accommodations are listed above.

A notebook was used and found effective for Learner A. This accommodation was also used for Learner B but found to be ineffective. The accommodation was not very effective for Learner C.

In the second example a checklist was not used with any of the three learners; therefore “No’s” were circled, and there was no response needed on the effectiveness scale.

Finally, the respondent used computers as an accommodation with two of the learners but not the third. The computers were effective with learners A and B.

<table>
<thead>
<tr>
<th>Accommodation</th>
<th>Used?</th>
<th>Ineffective</th>
<th>Effectiveness</th>
<th>Effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>a Use a notebook</td>
<td>A Yes</td>
<td>A 1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B Yes</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C Yes</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b Provide a checklist</td>
<td>A Yes</td>
<td>A 1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B Yes</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C Yes</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c Use computer</td>
<td>A Yes</td>
<td>A 1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B Yes</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C Yes</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix C
Accommodations Review List

Accept alternative forms of information sharing (demonstrations, taped instead of oral report, debates)
Accept responses in demonstration or written format
Adapt work surface (e.g. height)
Adjust computer table heights
Allow another learner to read material to learner before the learner is required to read
Allow close placement in rooms
Allow extra time to complete assignments
Allow food in classroom
Allow learner adequate time to acclimate to new areas, new staff, new learners
Allow learner to bring support person to class when difficult changes are anticipated
Allow learner to decide what task to do first, second, third
Allow learner to read/study at home, where equipment/technology is available that is not available in the classroom
Allow learner to seek out different sources and intensities of light
Allow learner to set up own schedule
Allow learner to sit close to materials that must be viewed
Allow learner to use a study partner
Allow learner to wear brimmed cap to reduce glare
Allow more time; avoid setting time limits
Allow scribe or tape-recorder
Allow student to stand up or lie down whenever necessary
Allow the learner to type or use word processing
Avoid lengthy periods of desk work
Break work into smaller amounts
Change door and aisle widths
Color code keys on calculator or keypad
Communication board
Decrease the need to read handwritten materials, such as notes or comments
Demonstrate tasks to be completed in small steps
Eliminate background noise
Encourage breaks and physical movement during breaks
Encourage learner to change positions every 10-15 minutes to prevent pain and fatigue
Encourage learner to wear comfortable clothes
Enhance contrast of desk edges and other protruding objects with colored tape
Enhance visibility of small objects with brightly colored tape
Experiment with different writing utensils (felt tip pen, pen, pencil, oversized pencil)
Free work area from distractions; use carrel or quiet corner
Give explanations in small, distinct steps
Give extra response time
Have audio-taped presentation of items or for recording responses
Have group discussions in a semi-circle so hearing impaired can see everyone
Have learner chew gum, licorice, lollipops
Have learner repeat directions orally, or use a written clue
Have learner sit close to the teacher, far from the window, in a study carrel, or near a
Have learner work with a partner who will cue learner to stay on task
Have shortened work intervals
Help learner know what to expect, outline day's plan
Help learner set time goals for each task
If student is unable to maintain comfort in class, allow work at home, checking in by phone, or weekly/biweekly at center
Keep materials in file folder
Keep room arrangement constant, unless change is required for better access
List assignments with instructions on the blackboard
Lower lights, adjust room temperature
Organizational aids (i.e., cue cards)
Post daily routine, discuss changes as soon as possible
Provide a checklist of assignments
Provide a talking calculator
Provide adjustable lamp, lighting
Provide an alphabet chart
Provide an assistant to read and/or tape items
Provide an interpreter
Provide checklists for assignments
Provide clear, predictable break between two activities
Provide shorter assignments
Provide slate and stylus or brailler for Braille writing
Provide specified time frame for task completion
Provide speech synthesis for reading on the computer screen
Provide visual cues (such as flashing lights for timed tasks)
Provide written copy of oral directions and lectures
Provide yellow acetate overlays or other yellow filter (to enhance print contrast)
Refer for low vision treatment
Require less writing
Rewrite the student's text
Specify time frame to complete task; use a timer
Stand directly in front of a learner who is lip reading
Store cords and other hindrances away from traveled areas
Tape the material and allow reading along
Teach alternate methods of holding the writing utensil
Teach layout of the classroom; provide Braille maps of facilities
Teach learner to make cue notes
Try different writing surfaces such as different types of paper, more than one layer, or sandpaper underneath paper
Use a backpack or briefcase to keep things together
Use a computer to track materials and assignments
Use a computer with a larger display
Use a computer with speech recognition capabilities
Use a microphone/amplifier combination
Use a notebook to keep track of materials and assignments
Use a paper stabilizing device (tape)
Use a timer
Use a typoscope when reading
Use adapted computer capabilities, such as Zoom Text
Use adaptive devices such as grips, rulers, guides, paper with raised lines, or universal cuff
Use an abacus
Use appropriate magnification devices
Use Braille texts
Use carrel, earplugs
Use color code or visual cue when correcting learners' papers
Use compressed speech
Use computer hardware such as key guard to prevent multiple simultaneous keystrokes
Use computer software or calculator
Use computer software such as voice recognition
Use computer synthesized speech
Use different kinds of chairs (beanbag, rocking, therapy ball)
Use different types of input such as audio tapes
Use earphones (if music decreases distractibility)
Use fidget objects (paper clips, small balls) to relieve tension
Use graph paper
Use graph paper or wide lined paper
Use large print
Use large, bolded print texts and materials
Use larger type face while word processing
Use lumbar support chair, footstool
Use manipulatives (e.g. blocks, cuisinaire rods)
Use mnemonics
Use print scanner
Use rocking chair for calming effect
Use signing, lip reading, or an interpreter
Use soft, relaxing music (if it is not distracting)
Use sound absorbing surfaces
Use step by step checklists for completing tasks
Use white noise
Work on only one subject at a time
Write all assignments in assignment book
Accommodation Listing by Areas

Reading
Rewrite the student's text
Allow extra time
Provide shorter assignments
Allow another learner to read material to learner before the learner is required to read
Use large print
Use larger type face while word processing
Encourage learner to use typoscope
Tape the material and allow reading along
Decrease the need to read handwritten materials, such as notes or comments
Provide a talking calculator
Allow learner to seek out different sources and intensities of light
Provide speech synthesis for reading on the computer screen

Accessing Information with Low Vision
Refer for low vision treatment
Use appropriate magnification devices
Use large, bolded print texts and materials
Allow extra time
Provide typoscope
Allow learner to sit close to materials that must be viewed
Provide yellow acetate overlays or other yellow filter (to enhance print contrast)
Provide an assistant to read and/or tape items
Have audio-taped presentation of items
Use of a computer with a larger display
Color code keys on calculator or keypad
Use adapted computer capabilities, such as Zoom Text
Allow learner to seek out different sources and intensities of light
Provide adjustable lamp, lighting
Allow learner to wear brimmed cap to reduce glare
Use of a computer with speech recognition capabilities

Accessing Information with No Vision
Use Braille texts
Provide slate and stylus or brailer for Braille writing
Allow learner to read/study at home, where equipment/technology is available that is not available in the classroom
Provide an assistant to read and/or tape items
Have audio-taped presentation of items or for recording responses
Use of a computer with speech recognition capabilities
Use print scanner

Handwriting
Provide an alphabet chart
Teach alternate methods of holding the writing utensil
Use adaptive devices such as grips, rulers, guides, paper with raised lines, or universal cuff
Use a paper stabilizing device (e.g., Scotch tape)
Allow the learner to type or use word processing
Use computer software such as voice recognition
Use computer hardware such as key guard to prevent multiple simultaneous keystrokes
Experiment with different writing utensils (felt tip pen, pen, pencil, oversized pencil)
Try different writing surfaces such as different types of paper, more than one layer, or sandpaper underneath paper
Use graph paper or wide lined paper
Adapt work surface (e.g. height)
Allow more time; avoid setting time limits
Have shortened work intervals; encourage breaks
Allow scribe or tape-recorder
Require less writing

Solving math problems
Have smaller tasks
Use of manipulatives (e.g. blocks, cuisinaire rods)
Use of an abacus
Use of graph paper
Have shortened work intervals
Allow extra time
Use of computer software or calculator

Remembering
Teach learner to make cue notes
Write all assignments in assignment book
Use step by step checklists for completing tasks
Demonstrate tasks to be completed in small steps
List assignments with instructions on the blackboard

Paying Attention to Oral Directions
Give explanations in small, distinct steps
Provide written copy of oral directions and lectures
Provide visual cues on chalkboard or overhead
Have learner repeat directions orally, or use a written clue

Attention to Task
Free work area from distractions; use carrel or quiet corner
Use sound absorbing surfaces
Allow more time to complete assignments
Use a typoscope when reading
Use different types of input such as audio tapes
Avoid lengthy periods of desk work
Specify time frame to complete task; use a timer
Encourage breaks and physical movement during breaks
Have learner work with a partner who will cue learner to stay on task
Use white noise

Getting started
Break work into smaller amounts
Allow learner to decide what task to do first, second, third
Help learner set time goals for each task
Help learner develop a checklist for each step of the task
Assign peer coaches
Use a timer

Staying on Track
Provide specified time frame for task completion
Provide checklists for assignments
Use carrel, earplugs
Use earphones (if music decreases distractibility)
Use a typoscope if learner is distractible while reading

Staying Organized
Use mnemonics
Use a notebook to keep track of materials and assignments
Use color code or visual cue when correcting learners' papers
Keep materials in file folder
Work on only one subject at a time
Provide a checklist of assignments
Use a backpack or briefcase to keep things together
Use a computer to track materials and assignments

Dealing with Change
Help learner know what to expect, outline day's plan
Post daily routine, discuss changes as soon as possible
Allow learner adequate time to acclimate to new areas, new staff, new learners
Provide clear, predictable break between two activities
Allow learner to bring support person to class when difficult changes are anticipated

Frustration
Have shortened work intervals
Allow more time for tasks
Set up break times; allow physical movement during breaks
Use rocking chair for calming effect
Use soft, relaxing music (if it is not distracting)
Use study carrel to decrease distraction
Allow learner to set up own schedule

Accessing Information with Impaired Hearing
Provide written copy of oral directions and lectures
Use a microphone/amplifier combination
Provide visual cues (such as flashing lights for timed tasks)
Allow close placement in rooms
Stand directly in front of learner
Provide an interpreter
Use compressed speech
Eliminate background noise

**Accessing Information with No Hearing**
Provide written copy of oral directions and lectures
Use signing, lip reading, or an interpreter
Provide visual cues on chalkboard or overhead
Have group discussions in a semi-circle so hearing impaired can see everyone
Stand directly under the learner who is lip reading

**Accessing Facilities with Low or No Vision**
Teach layout of the classroom; provide Braille maps of facilities
Enhance visibility of small objects with brightly colored tape
Keep room arrangement constant, unless change is required for better access
Enhance contrast of desk edges and other protruding objects with colored tape
Store cords and other hindrances away from traveled areas

**Expressing Self Verbally**
Accept alternative forms of information sharing (demonstrations, taped instead of oral report, debates)
Give extra response time
Use computer synthesized speech
Communication board
Use signing or an interpreter
Accept responses in demonstration or written format
Organizational aids (i.e., cue cards)
Allow learner to use a study partner

**Accessing Facilities in a Wheelchair**
Adjust computer table heights
Change door and aisle widths
Store cords and other hindrances away from traveled areas

**Sitting Tolerance: Sitting Increases Agitation and Distraction From Task**
Use fidget objects (paper clips, small balls) to relieve tension
Allow food in classroom
Have learner chew gum, licorice, lollipops
Encourage learner to wear comfortable clothes
Use different kinds of chairs (beanbag, rocking, therapy ball)
Have learner sit close to the teacher, far from the window, in a study carrel, or near a quiet corner
Lower lights, adjust room temperature
Encourage breaks; encourage physical movement during breaks
Sitting Tolerance: Sitting Causes Pain or Fatigue

Allow student to stand up or lie down whenever necessary
Allow extra time to complete assignments
Use lumbar support chair, footstool
If student is unable to maintain comfort in class, allow work at home, checking in by phone, or weekly/biweekly at center
Encourage learner to change positions every 10-15 minutes to prevent pain and fatigue
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