

# **Public Information and Communication Technology Assessment Tool (PAT)**

This document was produced as part of the Disability and Information Technologies (Dis-IT) Research Alliance. Funding for Dis-IT is provided by the Social Sciences and Humanities Research Council of Canada (SSHRC).

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# Introduction

## **What are PICTs?**

Public information and communication technologies, or PICTs, include products such as banking machines, informational kiosks, point of sale devices, and ticket/fare dispensers. Public information and communication technologies (PICTs) enable the majority of the population to access information, money, and various products in a convenient and timely fashion. PICTs are increasing in popularity as businesses become familiar with the many services and benefits that PICTs can provide.

## **Why assess the accessibility of PICTs?**

The majority of PICTs are privately owned and are therefore not subject to standard design guidelines. Consequently, the styles of these products vary greatly: some are freestanding units while others are wall-mounted, some have audio output, others are wheelchair accessible, and the list goes on. These various styles can either make the PICT easier to use (facilitate use) or harder to use (create barriers to use) depending on the abilities of the person who is using it. People who experience difficulties with reading may benefit from graphic symbols rather than keys labeled with words. People of short stature and people using wheelchairs may prefer to angle the screen in order to better view the onscreen display. Many people with low vision would like to have the option of increasing the size of the font on the screen. The more facilitators that are built into the design of the PICT, the easier it is for people of varying abilities to use.

## **What is the PICT Assessment Tool (PAT)?**

How accessible is your PICT? How user friendly is the environment surrounding the PICT? The PICT Assessment Tool (PAT) is a two-part questionnaire that will assist with determining the accessibility of a PICT for all users, regardless of individual function abilities or limitations.

## **Development of the PAT**

The development of the PICT Assessment Tool (PAT) was part of a larger project, the Disability and Information Technology Research Alliance (DIS-IT), which was funded by the Social Sciences and Humanities Research Council (SSHRC). The goal was to develop a tool that could be used by anyone wanting to determine the accessibility of public information communication technologies (PICTs).

The PAT was designed to determine the accessibility of various types of PICTs. This pen-and-paper questionnaire can be administered by a variety of groups or individuals, including business owners, disability advocacy groups, students, researchers, city planning staff and those involved in the PICT industry.

### **Item selection and development**

Development of the tool began with an extensive search to find existing literature on the accessibility and features of PICTs. Current Canadian and International guidelines for barrier-free design were considered during the question development. In particular, three Canadian Standards Association documents, *Barrier-Free Design: A National Standard for Canada*, *Barrier-Free Design for Automated Banking Machines*, and *Barrier-Free design for self-service interactive devices*, were widely used in the tool's development.

After defining terms, identifying the types of PICTs to be assessed by the PAT and determining the potential user groups, the researchers created an initial draft version of the PAT. Upon completion of the draft, accessibility experts and individuals with various disabilities were consulted for review and modification of the existing assessment questions and development of new questions. Consultants also provided suggestions regarding the layout and design of the tool.

### **Usability/Content Validity**

A usability study was conducted to determine the usefulness of the tool, identify redundant or missing information, evaluate the clarity of items, instructions and format, and to calculate the time required to complete the assessment. Participants (n=24) completed a usability questionnaire in addition to evaluating two separate PICTs using the PAT. Several revisions were made to the tool based on feedback received from the participants and research assistants.

### **Reliability**

A study was conducted to determine the test-retest reliability of the tool. Participants (n= 7) used the PAT to complete two assessments of a single PICT, with the second being completed approximately one month following the first assessment. The tool was found to have substantial to excellent test-retest reliability with Kappa scores ranging from .66 to .92. An inter-rater reliability study was conducted with two raters independently rating the six PICTs. In this study, Kappa scores ranged from .88 - .97 indicating excellent agreement.

### **Education**

The PAT questionnaire is accompanied by an educational section which provides a rationale for particular measurements or features described in the tool and offers recommendations for improving the accessibility of the PICT.

### **Scoring**

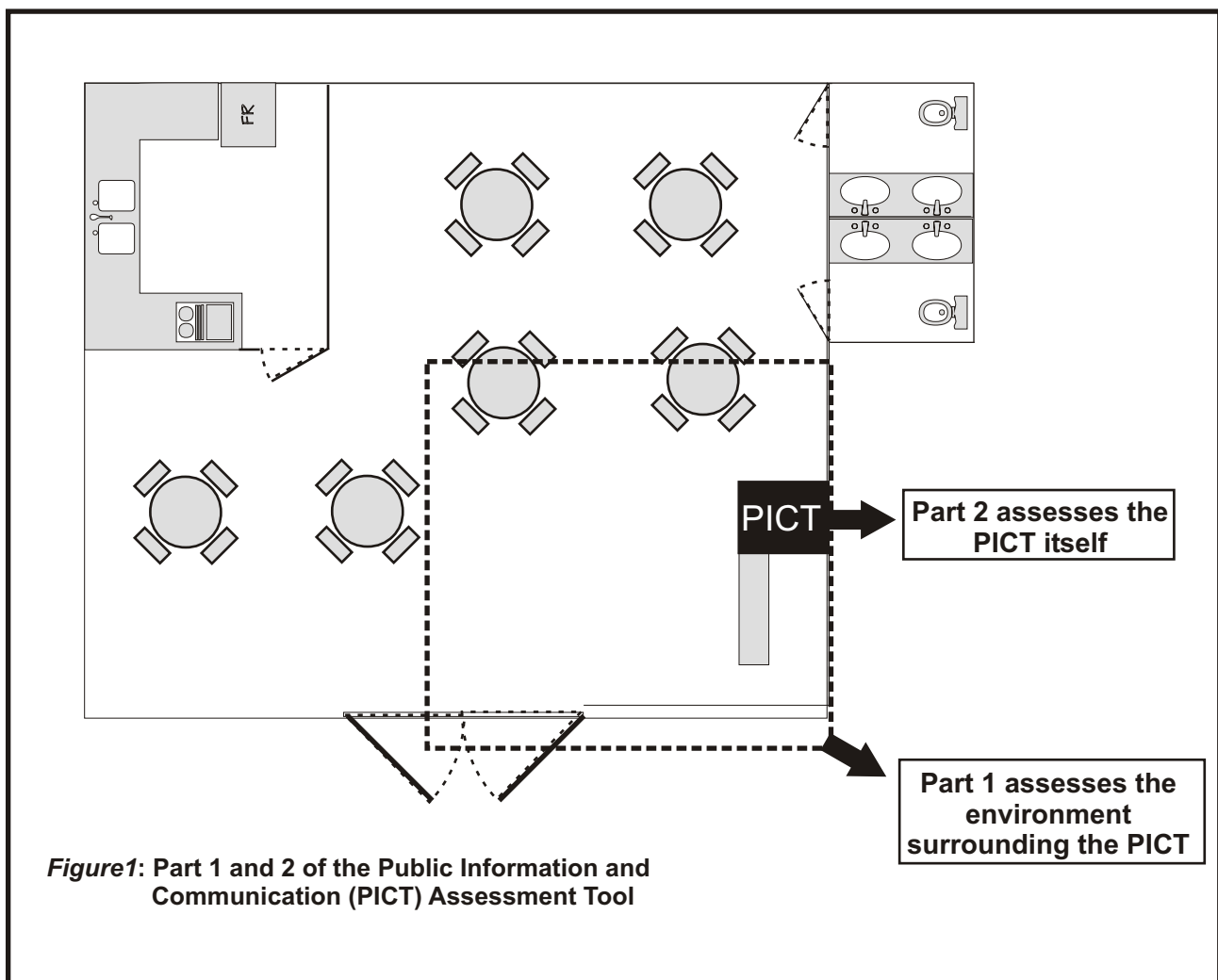
Seven experts on issues of environmental accessibility were asked to assign a weight to each item in the tool. A 3 indicated that the feature was required for PICT access; a 2 indicating that the item was recommended for PICT access; and a 1 meant that the item was option or helpful for PICT access. Through discussion and consensus they assigned final weights

## Overview of the PAT

The PAT is a two-part questionnaire. Part 1 of the questionnaire examines the accessibility of the environment leading up to and immediately surrounding the PICT; it addresses barriers and facilitators that exist from 0 to 10 metres (0-33 feet) away from the PICT. Part 1 assesses doors, accessible routes, floor/ground surface, signage, lighting, elevators, stairs and ramps, and noise levels.

Part 2 addresses the accessibility of the PICT itself, including its various components and the physical and cognitive demands required to operate it. Part 2 assesses installation, components, operations, and communication options of the PICT. The following diagram below shows the two parts of this questionnaire.

The completed questionnaire will give an indication of the overall accessibility of the PICT. The higher the score, the more accessible the PICT.



## Scope of the PAT

The PAT is an assessment tool designed to be used by any individual or group interested in determining the accessibility of public information and communication technologies (PICTs). The PAT also provides specific references on how to make PICTs more accessible (see appendix).

Many people may benefit from the use of this tool including business owners, disability advocacy groups, students, researchers, city planning staff, and those involved in the PICT industry. For example, a business owner may complete this questionnaire to determine the overall accessibility of a PICT in her/his business, and will be able to identify potential changes to the PICT and the environment that would increase accessibility. Increasing the accessibility of the PICT will broaden the base of potential customers, which will ultimately increase profits and benefit the business owner. This tool could also be used by disability advocacy groups who may wish to determine how accessible PICTs are in a defined community for one particular user group. This information could then be used to lobby for changes. The clear instructions, straightforward layout, and quick administration time make this tool easy for anyone to use.

The PAT was developed to encompass as broad a range of PICTs and potential users as possible. However, it may not be appropriate for use in every situation.

It is possible that the environmental range encompassed by Part 1 (0-10 metres or 0-33 feet) may include environmental or architectural structures (e.g. escalators, parking stalls, curbs, or pedestrian crosswalks) that may impede a person's access to a PICT. Some of these structures are not included in the PAT. If this is the case, the assessor should use an additional tool such as the Housing Enabler<sup>7</sup>, the Shopping Mall Wheelchair Accessibility Checklist<sup>10</sup>, or the Home and Community Environment (HACE) instrument<sup>9</sup> to address issues outside of the scope of the PAT. References for additional environmental assessment tools can be found in the appendix.

# Administration of the PAT

## Materials

In order to complete the questionnaire you will need the following items:

- a copy of the PAT
- a pen or pencil
- a measuring tape or device

## Measurements

The questionnaire includes both metric (millimetres) and imperial (inches) dimensions (imperial dimensions are in parenthesis). Metric and imperial equivalents have been approximated by using the conversion of 2.5 cm = 1 inch.

## Determining the Range

Part 1 assesses the environment surrounding the PICT from 0-10 metres (0-33 feet). This range may not be applicable or appropriate to all PICTs. The purpose of choosing an appropriate range is to ensure that the PAT assesses the route to the PICT, not necessarily the route into or through the building, parking lot, or platform on which the PICT is located.

Identify the most traveled route used to access the PICT and note the environmental features around the PICT. Consider the sections assessed in Part 1 (doors, accessible route, floor/ground surface, signage, lighting, elevators, and stairs and ramps) and chose a range that addresses those issues. Avoid choosing a range that includes other environmental structures that are nearby but are not relevant to accessing the PICT itself. For example, if the PICT is within a large facility, the range chosen should reflect a direct route to the PICT through the immediate environment surrounding it. It should not include other features of the larger environment well outside the 0-10 metre suggested range.

The PAT does not assess escalators, curbs, parking areas, pedestrian crosswalks, or traffic patterns, so the range chosen should avoid including environmental structures that are not covered by the PAT. PICTs in outdoor locations may pose a particular challenge. In some cases, an additional assessment tool may be required to address other environmental components. A list of additional environmental assessment tools can be found in the appendix.

If the range needs to be altered to accommodate the location of the PICT being assessed, please identify the outer limit of this range in the Assessment Profile section of the questionnaire.

## Directions

1. Read all questions and instructions.
2. When answering the questions, determine whether the response is “yes” or “no” or “not applicable”.

<b>Yes</b>	If the response is “yes”, put a one (1) in the answer section. A one (1) indicates that the PICT is accessible in that area.
<b>No</b>	If the response is “no”, put a zero (0) in the answer section. A zero (0) indicates that the PICT is not accessible in that area.
<b>NA</b>	If an entire section is “not applicable”, put a NA in the answer section. An NA indicates that the section is not relevant to the PCIT you are assessing.

3. At the end of the questionnaire the responses will be totaled. Follow the directions in the scoring section on page 22. This total will give an indication of the accessibility of the PICT.

## Scoring the PAT

The PAT has 2 parts, Environment and PICT. There are 14 subsections and a total of 207 possible items to score. It may not be appropriate to score each item as some may not be applicable. Each item is given a score of 1 or 0.

0 = does not meet the standard or does not exist  
1 = the standard is met or exceeded

Each item has been pre-assigned a weight based on the following guidelines:

3 = required/compulsory for PICT access  
2 = recommended for PICT access  
1 = optional/suggested for PICT access

## Scoring process:

- 1) Multiply the score for each item by the weight
- 2) Add the weighted scores for each section and record in subtotal box at the end of each section.
- 3) Transfer the subtotals from each section to the summary table on page 23.
- 4) For each section, divide the score by the total possible for each section (denominator). Multiply by 100 to obtain a percentage.
- 5) Using the profile on page 23, shade in the bars for each section using the percentages calculated in the summary table. If N/A is used for a section, fill that bar in with diagonal stripes. See page 24 for a sample.

**Interpretation of scores:**

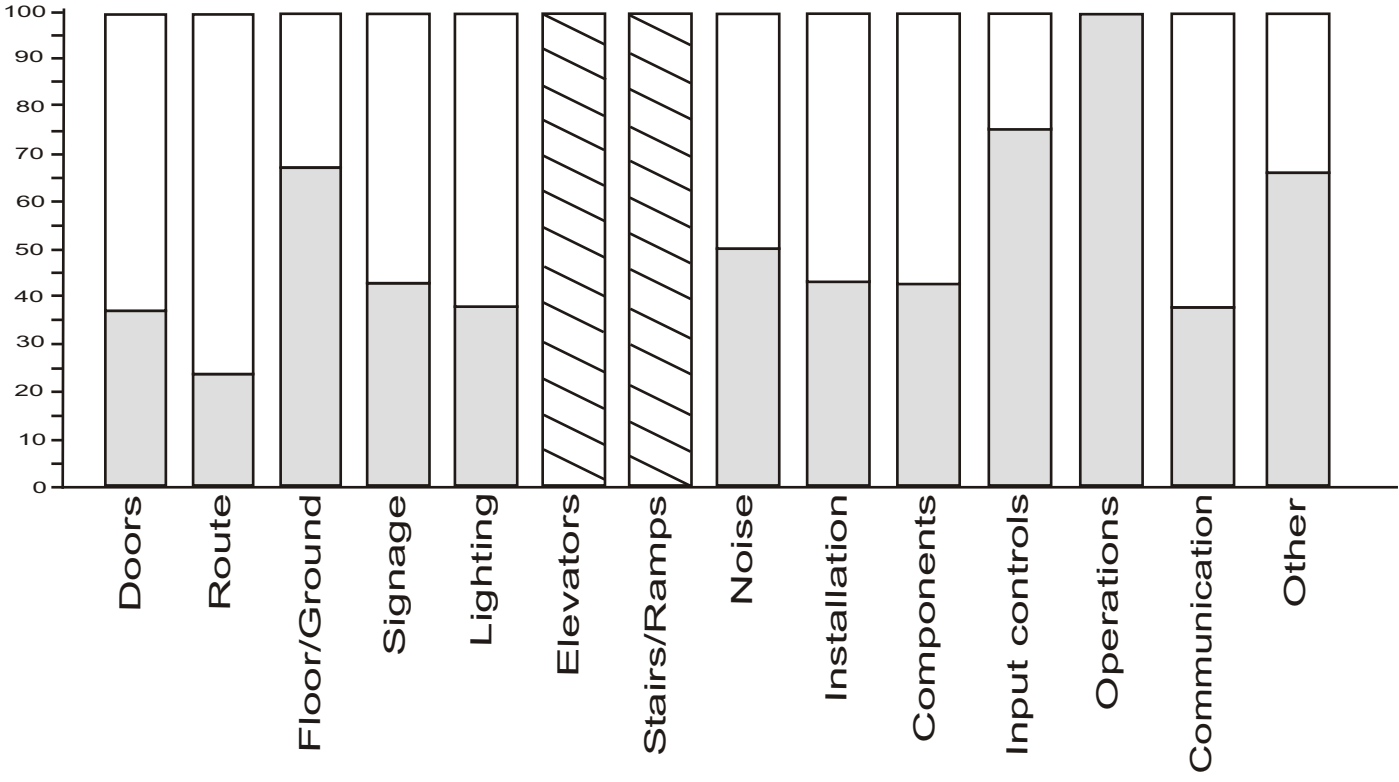
Higher scores reflect a greater degree of accessibility

68% or greater	The PICT has minor accessibility issues and is accessible by the majority of the population including those with disabilities.
34 - 67%	The PICT has moderate accessibility issues but is still accessible to only a portion of the population.
0 - 33%	The PICT is completely inaccessible or has significant accessibility issues.

**Please note:** The PAT is not intended to be used to compare one PICT with another; rather, the purpose is to provide a detailed description of the accessibility features of each PICT and surrounding area. It is also used to determine whether changes made to a PICT have affected its accessibility.


**Scoring Sample**

	Section	Score	Denominator	Percentage
<b>PART 1</b>	1	22	60	<b>37</b>
	2	5	21	<b>24</b>
	3	12	18	<b>67</b>
	4	10	23	<b>43</b>
	5	3	8	<b>38</b>
	6	N/A	52	<b>N/A</b>
	7	N/A	50	<b>N/A</b>
	8	2	4	<b>50</b>
<b>PART 2</b>	9	9	21	<b>43</b>
	10	31	73	<b>42</b>
	11	58	76	<b>76</b>
	12	3	3	<b>100</b>
	13	40	104	<b>38</b>
	14	2	3	<b>67</b>
		Total Part 1	54	236
	Total Part 2	143	280	<b>51</b>
	Total Part 1+2	197	516	<b>38</b>



## Glossary

<b>Accessibility</b>	Items or areas designed to meet the functional needs of all people to the greatest extent possible.
<b>Acronym</b>	A word formed from the first letter of other words. For example, PICT is an acronym for <b>P</b> ublic <b>I</b> nformation and <b>C</b> ommunication <b>T</b> echnology.
<b>Aid to daily living</b>	Equipment or device used daily to make activities easier to accomplish, such as a walker used to help someone with decreased balance walk safely.
<b>Alignment</b>	Arrangement in a straight vertical or horizontal line.
<b>Ambient conditions</b>	Features of the immediate environment, including lighting, noise level, and pace of activity. For example, a library has quiet ambient conditions, whereas an amusement park has busy and stimulating ambient conditions.
<b>Audio</b>	Relating to hearing or sound.
<b>Audio jack</b>	A socket for a plug that would enable the user to listen to instructions through a headset.
<b>Audio output</b>	Verbal instructions and sounds coming out of the PICT.
<b>Auditory feedback</b>	Sounds and tones coming out of the PICT in response to user input.
<b>Barrier-free</b>	A form of landscape and architectural design that is as accessible as possible and free of physical barriers such as curbs and stairs.
<b>Bevelled</b>	A sloped or rounded edge to a flat surface.
<b>Card reader</b>	Part of the PICT that the user inserts the card into to begin a transaction. When using a <b>motorized card reader</b> , the card is inserted into a horizontal slot by the user and it is automatically pulled into the machine. When the transaction is over, the machine automatically pushes the card out. Using a <b>swipe card reader</b> involves inserting the card into the edge of the reader, then pulling it along a groove to begin a transaction.
<b>Colour contrast</b>	When a light colour and a dark colour are used beside each other to make an object more visible.
<b>Component</b>	One part of larger whole. For example, the keypad is one part of the PICT.
<b>Concave</b>	A surface that curves inward like the inside of a circle.
<b>Dead area</b>	Areas of a touch screen that will not respond when touched.
<b>Decimal</b>	A small dot placed after a number to indicate tenths of a unit. For example, \$1.50
<b>Detectable warning surfaces</b>	Textured floor surfaces that a person can feel is different from the regular floor surface.
<b>Disability</b>	Disability is a limitation in functional ability resulting from difference between a person's abilities and the demands of the surrounding environment.
<b>Dispenser</b>	Part of a PICT that releases an item such as money, tickets, or receipts.

<b>Door jamb</b>	The side post of a door frame.
<b>Function keys</b>	Keys that allow the user to carry out an action. For example, function keys allow the user to make a withdrawal, select a type of ticket, or end the transaction.
<b>Functional interior</b>	The usable space inside an area that is free of barriers.
<b>Impairment</b>	A limitation resulting from atypical body structures or functions. For example, a person who has difficulty seeing objects even with corrective glasses may be described as having a visual impairment.
<b>Interface</b>	The point at which two things meet and interact, such as the display screen that allows the user to interact with the PICT.
<b>International Symbol of Accessibility</b>	
<b>Jargon</b>	Words used by a particular group that may be hard for others to understand. For example, doctors may use medical jargon that patients do not understand.
<b>Leading edge</b>	The edge of the PICT that extends out the furthest towards the user.
<b>Lineup area</b>	The standing area where people wait their turn to use the PICT.
<b>Line-up guide</b>	The markers that indicate the area in which people should stand when they line up to use the PICT.
<b>Matte</b>	Dull; not shiny or glossy.
<b>Minijack</b>	A device that can be inserted into a socket in order to hear the audio instructions and audio output of a PICT.
<b>Mobility aid</b>	A device or piece of equipment that a person uses to move about the environment, such as a cane, walker, or wheelchair.
<b>Non-slip</b>	A surface that is textured or easy to grip.
<b>Numeric keys</b>	Keys with numbers on them used to enter amounts or chose options on a PICT.
<b>Path of travel</b>	The path that a person would follow when traveling through a location.
<b>PICT</b>	Public Information and Communication Technology
<b>Swing Range</b>	The area a door moves through when it is opening and closing.
<b>Swipe</b>	To pass a card through a reader.
<b>Tactile</b>	Identifiable by touch.
<b>Tactile feedback</b>	The sensation a person receives in response to touching something. For example, a person may sense a bump when they pass their fingertip over a raised dot on the number five key.
<b>Tapered</b>	To gradually decrease in width towards one end.
<b>Universal Symbol</b>	An easily understood symbol or picture representing an idea or concept without using words or letters, such as the International Symbol of Accessibility.
<b>Visual</b>	Relating to seeing or sight.

# **Public Information and Communication Technology Assessment Tool (PAT)**

## **QUESTIONNAIRE**

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# Assessment Profile

## PARTICIPANT INFORMATION

Date and time of the assessment: \_\_\_\_\_

Name and contact information of the person performing the assessment (mailing address, phone number, e-mail address, company name and address if applicable, etc.)

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## PICT INFORMATION

Type of PICT being assessed:

- Ticket dispenser (parking, fare, movie, etc.)
- Automated bank machine
- Point of Sale/ Interact
- Informational kiosk
- Other (specify) \_\_\_\_\_

Location and address of the PICT being assessed

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## ASSESSMENT INFORMATION

Assessment Range

- 0-10 metres (0-33 feet)
- Other (specify) \_\_\_\_\_

Respondents may use the PAT to evaluate accessibility in terms of a specific area of interest or from a particular perspective. List any specific accessibility issues you are interested in here:

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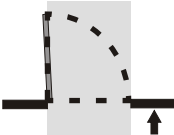

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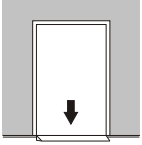
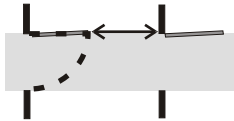





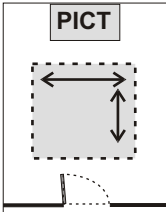
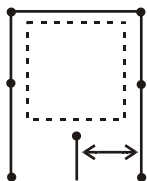
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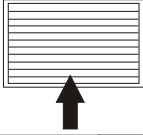



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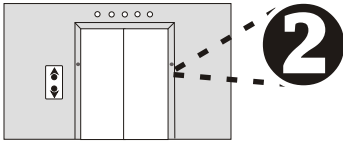
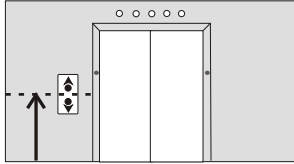
Part 1: Environment 1-10 m (0-33')	Answer	Score
<p><b>1. DOORS</b></p> <p>This section assesses the main set of doors used to gain access to the PICT that fall within the designated range. If there are no doors within the designated range, write “NA” in the answer key for this section and move on to Accessible Route.</p>		
<p><b>General</b></p>		
<p>1.1 Is there a sensor that causes the door to open automatically (without having to press a button)?<sup>8</sup></p>		<p>x 2 =</p>
<p>1.2 If the door does not open automatically, is there a button that can be pressed to open the door that is located between 40 cm and 120 cm from the floor?<sup>1</sup></p>		<p>x 2 =</p>
<p>1.3 Can the doors be fastened in an opened position?<sup>8</sup></p>		<p>x 1 =</p>
<p>1.4 Is it possible to open the door with one hand?<sup>1</sup></p>		<p>x 3 =</p>
<p>1.5 Is it possible to open the door without having to use a tight grasp, pinch, or twist of the wrist?<sup>1</sup></p>		<p>x 3 =</p>
<p>1.6 Does it take at least three seconds for the door to move to a semi-closed position?<sup>1</sup></p>		<p>x 2 =</p>
<p>1.7 If there is an accessible door, does it display the International Symbol of Access?<sup>1</sup></p>		<p>x 2 =</p>
<p><b>Dimensions</b></p>		
<p>1.8 Is the width of all doorways at least 81 cm (32.5”) (check that hinges and door handles are not included in the width measurement)?<sup>1</sup></p>		<p>x 3 =</p>
<p>1.9 Is there a level platform 150 cm x 150 cm (60” x 60”) on the pull side of the door?<sup>1</sup></p>		<p>x 3 =</p>
<p>1.10 Is there a level platform 120 cm x 120 cm (48” x 48”) on the push side of the door?<sup>1</sup></p>		<p>x 3 =</p>
<p>1.11 If the door is to be pushed open, is there at least 30 cm (12”) of wall space next to the door latch?<sup>1</sup></p>		<p>x 2 =</p>
<p>1.12 If the door is to be pulled open, is there at least 60 cm (24”) of wall space next to the door latch?<sup>1</sup></p>		<p>x 3 =</p>

Part 1: Environment 1-10 m (0-33')	Answer	Score
1.13 Are the door handles located between 40 cm and 120 cm (16" and 48") from the floor? <sup>1</sup>		x 2 =
1.14 Is the threshold less than 6 mm (1/4") high or is the threshold sloped if it is between 7 mm and 13 mm (1/4"-1/2")? <sup>1</sup>		x 3 =
<b>Two Doors in a Row</b> If there is only one set of doors needed to access the PICT within the designated range, write "NA" in the answer key for this section and move on to the next section.		
1.15 Is there at least 120 cm (48") plus the width of the door in between the two doors? <sup>1</sup>		x 3 =
<b>Power-assisted Doors</b> If there are no power-assisted (automatic) doors within the designated range, write "NA" in the answer key for this section and move on to the next section.		
1.16 Does it take at least three seconds for the door to open fully from a closed position? <sup>1</sup>		x 3 =
1.17 Does the door require a minimal amount of force to stop it from moving? <sup>1</sup>		x 3 =
<b>Doors Requiring Card Access</b> If there are no doors requiring card access within the designated range, write "NA" in the answer key for this section and move on to the next section.		
1.18 Does the door automatically open when the card is inserted or swiped through the reader? <sup>3</sup>		x 3 =
1.19 Is the door entry card reader located so that people with visual impairments can find it? <sup>3</sup>		x 3 =
1.20 Is the card reader located at a height range between 75 cm and 90 cm (30" and 36")? <sup>3</sup>		x 3 =
1.21 Does the card reader have rounded edges? <sup>3</sup>		x 1 =
1.22 Does the color of the card reader contrast with the surrounding area? <sup>3</sup>		x 3 =

Part 1: Environment 1-10 m (0-33')	Answer	Score
1.23 Is the card reader marked with a symbol indicating the correct way to insert the card? <sup>3</sup>		x 2 =
1.24 Is the card reader marked with a tactile symbol that represents the card? <sup>3</sup>		x 2 =
<b>SUBTOTAL FOR DOORS</b>		
<b>2. Accessible Route</b> This section assesses a person's ability to move through the environment surrounding the PICT.		
<b>General</b>		
2.1 Is the pathway leading up to the PICT at least 92 cm (37") wide? <sup>1</sup>		x 3 =
2.2 Along the pathway, do all objects located higher than 68 cm (27") from the ground, stick out less than 10 cm (4")? <sup>1</sup>		x 2 =
2.3 Is there a level area with minimum dimensions of 150 cm x 150 cm (60" x 60") in front of the PICT that is separate from the lineup area and is not compromised by a swinging door? <sup>3</sup>		x 3 =
2.4 Is the area immediately in front of the PICT free from obstructions such as garbage cans or newspaper stands? <sup>1</sup>		x 3 =
<b>Lineup Area</b>		
2.5 Does the lineup area have a floor surface that contrasts in color with the rest of the floor? <sup>3</sup>		x 2 =
2.6 Does the lineup area have a floor surface that contrasts in texture with the rest of the floor? <sup>3</sup>		x 2 =
2.7 If lineup guides are present, are they separated by a minimum of 92 cm (37") and have a minimum area of 150 cm x 150 cm (60" x 60") at the corners where lineups change direction? <sup>3</sup>		x 2 =

Part 1: Environment 1-10 m (0-33')	Answer	Score
2.8 If lineup guides are present, are they color contrasted with their surroundings? <sup>3</sup>		x 2 =
2.9 If lineup guides are present, are they cane-detectable? <sup>3</sup>		x 2 =
<b>SUBTOTAL FOR ACCESSIBLE ROUTE</b>		
<b>3. FLOOR/GROUND SURFACE</b> This section assesses indoor floor surfaces and outdoor ground surfaces.		
3.1 Is the floor or ground surface even and smooth (less than a 6mm (1/4") difference in surface level is considered acceptable)? <sup>1</sup>		x 2 =
3.2 Is the floor or ground surface free from debris (including seasonal debris such as snow, water, or ice in an outdoor location)? <sup>1</sup>		x 3 =
3.3 Are carpeted surfaces firm (i.e. do not have a high pile, loose weave or soft underlay)? <sup>14</sup>		x 2 =
3.4 Are the spaces in any grated surface 1.3 cm (1/2") or less in one direction? <sup>1</sup>		x 3 =
3.5 Are the spaces in any grated surface placed so that the long dimension is across the dominant direction of travel? <sup>1</sup>		x 2 =
3.6 Are outdoor ramps and approaches designed so that water will not accumulate on ground surfaces? <sup>1</sup>		x 2 =
3.7 Are the floors slip-resistant? <sup>1</sup>		x 2 =
3.8 Are the floors free from glare? <sup>1</sup>		x 2 =
<b>SUBTOTAL FOR FLOOR SURFACE</b>		
<b>4. SIGNAGE</b> This section assesses signs and labels indicating the location of the PICT.		
4.1 Are signs indicating the location of the PICT posted in visible locations? <sup>1</sup>		x 2 =
4.2 Are letters and numbers on signs displayed with simple, easy-to-read text (1, 2, 3, 4 not I, II, III, IV)? <sup>1</sup>		x 2 =
4.3 Do letters and numbers on signs contrast with the background? <sup>1</sup>		x 3 =
4.4 If there are any words on the signs, is the information presented clearly without any jargon or acronyms? <sup>2</sup>		x 3 =

Part 1: Environment 1-10 m (0-33')	Answer	Score
4.5 Are there tactile signs? <sup>11</sup>		x 3 =
4.6 Are characters, symbols, or pictures on tactile signs clear and easy to understand? <sup>11</sup>		x 3 =
4.7 Are characters, symbols, or pictures on tactile signs raised by at least 0.8mm (1/32")? <sup>1</sup>		x 3 =
4.8 If tactile signs are wall mounted, are they posted at a height of approximately 150 cm +/- 2.5 cm (50" +/-1")? <sup>1</sup>		x 2 =
4.8 Is the International Symbol of Access prominently displayed on or near accessible PICTs? <sup>1</sup>		x 2 =
<b>SUBTOTAL FOR SIGNAGE</b>		
<b>5. LIGHTING</b>		
5.1 Is lighting adequate for a person to identify obstacles and move about the environment safely? <sup>3</sup>		x 3 =
5.2 Is the lighting bright around stairs, curbs, and ramps? <sup>3</sup>		x 3 =
5.3 Does the lighting provide high levels of illumination without creating glare, reflections, or reduced contrast on the PICT screen? <sup>3</sup>		x 2 =
<b>SUBTOTAL FOR LIGHTING</b>		
<b>6. ELEVATORS</b> If an elevator is not needed to access a PICT or is not within the designated range, write "NA" in the answer key for this section and move on to Stairs and Ramps.		
6.1 Is the gap height between the building floor and the elevator floor less than or equal to 1.3 cm (1/2")? <sup>1</sup>		x 3 =
6.2 Is the door width clearance at least 91 cm (36")? <sup>1</sup>		x 2 =
6.3 Is the elevator equipped with sensors that will reopen the door if someone crosses the door's path while it is closing (the elevator door should not have to touch the person in order to reopen)? <sup>1</sup>		x 3 =
6.4 Does the elevator door stay open for a minimum of 4 seconds when the user is getting on the elevator? <sup>1</sup>		x 2 =
6.5 Does the elevator door stay open for a minimum of 3 seconds when the user is getting off? <sup>1</sup>		x 2 =

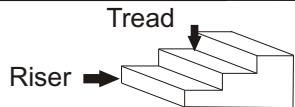
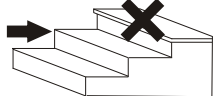
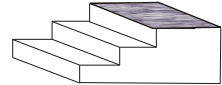
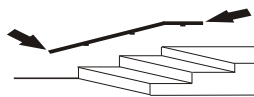
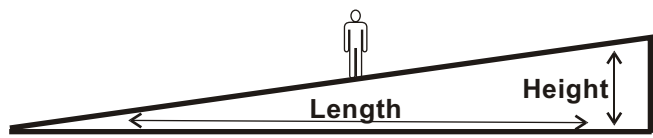
<b>Part 1: Environment</b> 1-10 m (0-33')	Answer	Score
6.6 Is the functional interior of the elevator at least 170 cm x 137 cm (69" x 55")? <sup>1</sup>		x 2 =
6.7 Are large, easy-to-read numbers posted on both sides of the door jamb? <sup>1</sup>		x 3 =
6.8 Are tactile symbols (raised numbers or Braille) posted on both sides of the door jamb? <sup>1</sup>		x 3 =
<b>Hall Call Buttons Outside the Elevator</b>		
6.9 Are the hall call buttons mounted one above the other? <sup>1</sup>		x 2 =
6.10 Are the hall call buttons mounted so that the centerline is approximately 107 cm (+/- 2.5 cm) (43"+/-1") from the floor? <sup>1</sup>		x 3 =
6.11 Are the hall call buttons at least 2 cm (3/4") in size? <sup>1</sup>		x 2 =
6.12 Are all hall call buttons clearly labeled and easy to read? <sup>1</sup>		x 2 =
6.13 Are all hall call buttons labeled with tactile symbols? <sup>1</sup>		x 3 =
<b>Control Buttons Inside the Elevator</b>		
6.14 Are all control buttons located between 89 cm and 137 cm (35" and 55") from the floor? <sup>1</sup>		x 3 =
6.15 Are the control buttons at least 2 cm (3/4") in size? <sup>1</sup>		x 2 =
6.16 Are all control buttons clearly labeled and easy to read (1, 2, 3, 4 not I, II, III, IV)? <sup>1</sup>		x 3 =
6.17 Are all control buttons labeled with tactile symbols? <sup>1</sup>		x 3 =
6.18 Is there a visual signal that indicates that a button has been pressed and goes out when the floor has been reached? <sup>1</sup>		x 3 =
6.19 Is there an auditory signal signifying that a button has been pressed? <sup>1</sup>		x 3 =
6.20 Is there an auditory signal when the elevator stops at the landing? <sup>1</sup>		x 3 =

<b>Part 1: Environment</b>	<b>1-10 m (0-33')</b>	<b>Answer</b>	<b>Score</b>
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**SUBTOTAL FOR ELEVATORS**

**7. STAIRS AND RAMPS**

If stairs or ramps are not needed to access a PICT or are not within the designated range, write "NA" in the answer key for this section and move on to Noise Level. -

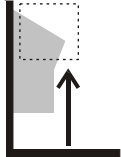

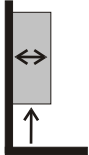
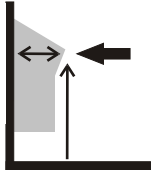
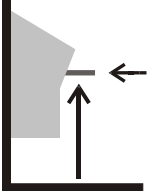
<b>7.1</b> Are the height and depth of all steps equivalent? <sup>1</sup>		<b>x 2 =</b>
<b>7.2</b> Is the height of each step 18 cm (7") or less? <sup>1</sup>		<b>x 2 =</b>
<b>7.3</b> Is the depth of each step at least 18 cm (7")? <sup>1</sup>		<b>x 2 =</b>
<b>7.4</b> Do the stairs have closed risers? <sup>1</sup>		<b>x 3 =</b>
<b>7.5</b> Are the corners of the stairs flush so that there is no overhanging lip? <sup>1</sup>		<b>x 2 =</b>
<b>7.6</b> Is there a detectable warning strip or surface at the top of the staircase? <sup>1</sup>		<b>x 3 =</b>
<b>7.7</b> Is there a detectable warning surface at the top of the staircase that contrasts in color? <sup>1</sup>		<b>x 3 =</b>
<b>7.8</b> Are there handrails? <sup>1</sup>		<b>x 3 =</b>
<b>7.9</b> Are there handrails on both sides? <sup>1</sup>		<b>x 3 =</b>
<b>7.10</b> Are there handrails located between 80 cm and 92 cm from the walking surface? <sup>1</sup>		<b>x 2 =</b>
<b>7.11</b> Do the handrails extend at least one stair width past the staircase? <sup>1</sup>		<b>x 3 =</b>
<b>7.12</b> Are ramps or elevators provided in addition to stairs? <sup>1</sup>		<b>x 3 =</b>
<b>7.13</b> Do ramps have an incline no steeper than the one pictured below, which is 2.5 cm (1") of height for every 30 cm (12") of length? <sup>1</sup>		<b>x 3 =</b>
<b>7.14</b> Is there a level area that is 150 cm x 150 cm (5" x 5') at the top of the ramp? <sup>1</sup>		<b>x 3 =</b>
<b>7.15</b> Is there a level area that is 150 cm x 150 cm (5" x 5') at the bottom of the ramp? <sup>1</sup>		<b>x 3 =</b>


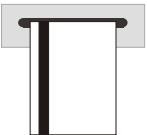
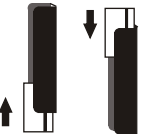

<b>Part 1: Environment 1-10 m (0-33')</b>	<b>Answer</b>	<b>Score</b>
7.16 Is the ramp at least 90 cm (36") wide? <sup>1</sup>		<b>x 3 =</b>
7.17 Does the ramp have handrails on both sides? <sup>1</sup>		<b>x 3 =</b>
7.18 Are there detectable warning surfaces at the top of the ramp? <sup>5</sup>		<b>x 2 =</b>
7.19 Are there detectable warning surfaces at the bottom of the ramp? <sup>5</sup>		<b>x 2 =</b>
<b>SUBTOTAL FOR STAIRS AND RAMPS</b>		
<b>8. NOISE LEVEL</b>		
8.1 Are noise levels controlled wherever possible to ensure a quiet area? <sup>3</sup>		<b>x 2 =</b>
8.2 Is the noise level appropriate for using the PICT without distraction or inconvenience? <sup>3</sup>		<b>x 2 =</b>
<b>SUBTOTAL FOR NOISE LEVEL*</b>		

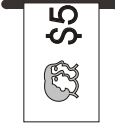

**\*See the scoring key on page 37 to calculate the accessibility rating for the environment surrounding the PICT.**



Include any additional comments related to the accessibility of the environment surrounding the PICT in the space provided on the next page.





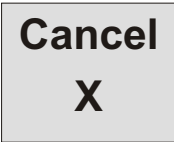

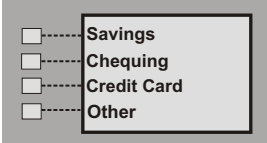
Part 2: PICT	Answer	Score
<p><b>9. INSTALLATION</b> This section assesses how and where the machine is set up.</p>		
<p><b>Height</b></p>		
<p><b>9.1</b> Are operable parts of the PICT, such as dispensers and receptacles, card readers and screens, located between 40 cm and 120 cm (16" and 48") from the floor?<sup>1</sup></p>		<p>x 3 =</p>
<p><b>Reach Ranges</b></p>		
<p><b>9.2</b> Are all operable parts indented by less than 50 cm (20") from the edge of the PICT?<sup>2</sup></p>		<p>x 3 =</p>
<p><b>9.3</b> Does the PICT provide an area for wheelchair footrests that is at least 68 cm (27") high from the floor, 75 cm (30") wide, and 36 cm (14") deep?<sup>3</sup></p>		<p>x 2 =</p>
<p><b>9.4</b> If the PICT is mounted on the wall at least 68 cm (27") above the ground, is its depth 10 cm (4") or less?<sup>1</sup></p>		<p>x 2 =</p>
<p><b>9.5</b> If the PICT is freestanding and the leading edge is between 68 cm and 198 cm (27" and 79") from the ground, does its depth measure 30 cm (12") or less?<sup>1</sup></p>		<p>x 3 =</p>
<p><b>9.6</b> Do all of the parts of the PICT that stick out no more than 4 cm (2") so as to not pose a hazard to people who have to lean in close to the PICT in order to see?<sup>3</sup></p>		<p>x 3 =</p>
<p><b>9.7</b> If the PICT is wall-mounted, is a vertical grab bar provided that starts 75 cm (30") from the ground and is less than 60 cm (24") away from the center of the screen?<sup>3</sup></p>		<p>x 1 =</p>
<p><b>9.8</b> If a parcel shelf is present, does it have a maximum depth of 25 cm (10"), a maximum height of no more than 86 cm (34") from the floor, and does not stick out more than 10 cm (4") into a pedestrian route?<sup>3</sup></p>		<p>x 1 =</p>

Part 2: PICT	Answer	Score
9.9 If the PICT has the potential to be handheld, is it portable enough to be used while standing or sitting? <sup>6</sup>		x 3 =
<b>SUBTOTAL FOR INSTALLATION</b>		
<p><b>10. COMPONENTS</b></p> <p>This section assesses all the parts of the machine that are not used for inputting information into the PICT.</p>		
<p><b>Card Reader</b></p> <p>If the PICT does not have a card reader, write "NA" in the answer key for this section and move on to the next section.</p>		
10.1 Is the card reader located directly to the right of the screen? <sup>3</sup>		x 3 =
10.2 Is the card reader labeled with a picture that identifies the orientation of the card for insertion into the reader? <sup>3</sup>		x 2 =
10.3 Is the card reader identified by a tactile symbol that identifies the orientation of the card for insertion into the reader? <sup>3</sup>		x 3 =
10.4 If the PICT is equipped with a motorized card reader that automatically pulls the card into the machine for the duration of the transaction, is the slot oriented horizontally? <sup>3</sup>		x 2 =
10.5 If the PICT has a swipe card reader, does it read the card when it is oriented correctly and swiped either upwards or downwards? <sup>3</sup>		x 2 =
10.6 Is the card reader slot easily identifiable by touch (e.g. raised edges or indented)? <sup>3</sup>		x 3 =
10.7 Are the outer edges of the card reader slot wider than the center to increase the accuracy of card insertion or swiping? <sup>3</sup>		x 2 =
10.8 Is the card reader slot color contrasted with the surrounding area? <sup>3</sup>		x 2 =
10.9 Does the card reader have an indicator light? <sup>3</sup>		x 2 =

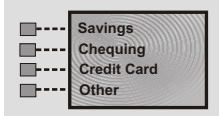
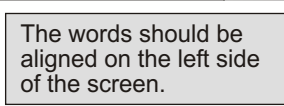
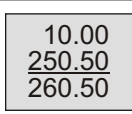
<b>Part 2: PICT</b>	<b>Answer</b>	<b>Score</b>
<b>10.10</b> Does the card protrude a minimum of 2.5 cm (1") when it needs to be removed? <sup>3</sup>		<b>x 3 =</b>
<b>10.11</b> Does the card require minimal force when it needs to be removed? <sup>3</sup>		<b>x 3 =</b>
<b>10.12</b> Does the machine provide visual feedback on the successful and/or unsuccessful reading of the card? <sup>2</sup>		<b>x 2 =</b>
<b>10.13</b> Does the machine provide auditory feedback on the successful and/or unsuccessful reading of the card? <sup>2</sup>		<b>x 3 =</b>
<p><b>Dollar Bill Reader</b> If the PICT does not have a dollar bill reader, write "NA" in the answer key for this section and move on to the next section.</p>		
<b>10.14</b> Is the dollar bill reader color contrasted from its surroundings? <sup>2</sup>		<b>x 2 =</b>
<b>10.15</b> Does the dollar bill reader have an indicator light? <sup>2</sup>		<b>x 2 =</b>
<b>10.16</b> Is the dollar bill reader labeled with a tactile symbol or Braille instructions? <sup>3</sup>		<b>x 3 =</b>
<b>10.17</b> Does the bill reader accept dollar bills regardless of how they are inserted (i.e. in any of the four orientations)? <sup>2</sup>		<b>x 2 =</b>
<b>10.18</b> If the bills are not automatically accepted in any orientation, is there a picture identifying how dollar bills should be inserted? <sup>2</sup>		<b>x 2 =</b>
<p><b>Coin Slot</b> If the PICT does not have a coin slot, write "NA" in the answer key for this section and move on to the next section.</p>		
<b>10.19</b> Is the coin slot color contrasted with its surroundings and/or have an indicator light? <sup>2</sup>		<b>x 2 =</b>
<b>10.20</b> Is the coin slot identified with a picture? <sup>2</sup>		<b>x 2 =</b>
<b>10.21</b> Is the coin slot identified by a tactile symbol? <sup>2</sup>		<b>x 3 =</b>
<b>10.22</b> Is the coin slot tapered to facilitate the insertion of coins? <sup>2</sup>		<b>x 2 =</b>


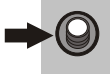
Part 2: PICT	Answer	Score
<p><b>Dispensers</b> If the PICT does not have a dispenser, write “NA” in the answer key for this section and move on to the next section.</p>		
<p><b>10.23</b> Are dispensers identified by pictures, color contrast against their surroundings, and/or an indicator light?<sup>3</sup></p>		<p>x 2 =</p>
<p><b>10.24</b> Are dispensers identifiable by touch?<sup>3</sup></p>		<p>x 2 =</p>
<p><b>10.25</b> If items such as money, receipts, or tickets, are dispensed out of a slot, do they protrude a minimum of 2.5 cm (1”) and require minimal force for removal?<sup>3</sup></p>		<p>x 3 =</p>
<p><b>10.26</b> If items are dispensed into a tray, pocket or bin, is the depth equal to or less than 7 cm (3”)?<sup>3</sup></p>		<p>x 2 =</p>
<p><b>10.27</b> If a cover is provided for the tray, pocket or bin, is it easy to open with one hand?<sup>3</sup></p>		<p>x 3 =</p>
<p><b>10.28</b> Can the item be retrieved from the bin without the use of fine motor control (i.e. pinching fingers or twisting of the wrist)?<sup>2</sup></p>		<p>x 3 =</p>
<p><b>Waste Container</b></p>		
<p><b>10.29</b> Does a waste container exist?<sup>3</sup></p>		<p>x 1 =</p>
<p><b>10.30</b> Is the waste container clearly identified?<sup>3</sup></p>		<p>x 1 =</p>
<p><b>10.31</b> Can the waste container be reached from both a standing and sitting position?<sup>1</sup></p>		<p>x 2 =</p>
<p><b>10.32</b> If a cover is provided for the waste container, is it easy to open with one hand?<sup>3</sup></p>		<p>x 2 =</p>
<p style="text-align: center;"><b>SUBTOTAL FOR COMPONENTS</b></p>		
<p><b>11. INPUT CONTROLS</b> This section assesses how information is inputted into the PICT.</p>		
<p><b>General</b></p>		
<p><b>11.1</b> Do the keys have a minimum dimension of 1.3 cm x 1.3 cm (1/2” x 1/2”)?<sup>3</sup></p>		<p>x 2 =</p>
<p><b>11.2</b> Are the keys higher than the surrounding surface (keys should not be flush with the surrounding surface)?<sup>2</sup></p>		<p>x 3 =</p>
<p><b>11.3</b> Are the key surfaces concave or non-slip?<sup>3</sup></p>		<p>x 2 =</p>

Part 2: PICT	Answer	Score
11.4 Do the keys have a non-shiny (matte) surface that minimizes glare? <sup>3</sup>		x 2 =
11.5 Is the keypad angled so that the keys are easier to view from a seated position? <sup>3</sup>		x 2 =
11.6 Is a reasonable amount of pressure required to activate the keys? <sup>15</sup>		x 3 =
11.7 When a key is accidentally pressed, is there a way for the user to make a correction? <sup>2</sup>		x 3 =
11.8 Can voice recognition be used to control the PICT? <sup>6</sup>		x 1 =
<b>Labeling</b>		
11.9 Do the characters or symbols on the keys contrast with the background? <sup>3</sup>		x 3 =
11.10 Are the characters or symbols on the keys as large and bold as the key size will allow? <sup>3</sup>		x 3 =
11.11 Is the type on the keys clear and easy to read? <sup>3</sup>		x 3 =
<b>Numeric Keypad</b>		
11.12 Is the keypad telephone style with the number one (1) in the top left corner and the number five (5) in the middle? <sup>3</sup>		x 3 =
11.13 Is the number five marked with a raised dot? <sup>3</sup>		x 3 =
11.14 Are the keys separated by at least 3 mm (1/8"), measured from the edges of the keys? <sup>3</sup>		x 3 =
<b>Function Keys</b>		
11.15 Are the function keys located to the right of the numeric keys? <sup>3</sup>		x 3 =
11.16 Are the function keys separated from the numeric keys by at least three times the distance between the numeric keys? <sup>3</sup>		x 2 =
11.17 Are the function keys arranged vertically in the following order: Cancel Correction OK/Enter? <sup>3</sup>		x 2 =

Part 2: PICT	Answer	Score
11.18 Are the function keys labeled with raised symbols? <sup>3</sup>		x 3 =
11.19 Are the raised symbols marked as follows: Cancel (X), Correction (<) OK/Enter (O)? <sup>3</sup>		x 3 =
11.20 If the following keys are used, are they marked as follows: Start Over (<<) Add Value (+), Decrease Value (-)? <sup>3</sup>		x 3 =
11.21 Are the function keys color-coded as follows: Cancel (red) Correction (yellow) OK/Enter (green)? <sup>3</sup>		x 3 =
11.22 Do the function keys correspond with onscreen instructions? <sup>3</sup>		x 3 =
11.23 Do the function keys have extended leader lines that contrast with their background and line up with the text on the screen? <sup>3</sup>		x 2 =
11.24 Do the function keys easily align with the information displayed on the screen when viewed from a standing or sitting position? <sup>6</sup>		x 2 =
<b>Touch screen</b> If the PICT does not have a touch screen, write “NA” in the answer key for this section and move on to the next section.		
11.25 Can the touch screen be activated with a prosthetic limb or stylus (pen-like device)? <sup>2</sup>		x 3 =
11.26 Can you activate the touch screen using a single point of contact (finger, pencil, stylus)? <sup>2</sup>		x 3 =
11.27 Does the PICT provide audio feedback when the touch screen is touched? <sup>2</sup>		x 3 =
11.28 Are active fields separated by a “dead area”? <sup>6</sup>		x 2 =

<b>Part 2: PICT</b>	<b>Answer</b>	<b>Score</b>
11.29 Touch screens can be triggered by application or withdrawal of the fingertip. If it is activated by fingertip withdrawal, then the user would be able to pass his/her fingertip over the screen and hear speech output describing the areas being touched. Is the touch screen activated by withdrawing the fingertip from the screen? <sup>6</sup>		<b>x 3 =</b>
<b>SUBTOTAL FOR INPUT CONTROLS</b>		
<b>12. OPERATIONS</b> This section assesses how the user is able to operate the PICT.		
12.1 Can a transaction be carried out from start to finish using only one hand ? <sup>3</sup>		<b>x 3 =</b>
<b>SUBTOTAL FOR OPERATIONS</b>		
<b>13. COMMUNICATION</b> This section assesses the way in which the PICT expresses information to the user.		
<b>General</b>		
13.1 Does audio and/or written instruction use plain language? <sup>3</sup>		<b>x 3 =</b>
13.2 Are the instructions easy to understand? <sup>6</sup>		<b>x 3 =</b>
13.3 Are the instructions available in Braille? <sup>6</sup>		<b>x 3 =</b>
13.4 Are all labels in good condition so that the user can read them? <sup>6</sup>		<b>x 3 =</b>
13.5 Are the instructions provided step-by-step instead of displaying instructions simultaneously? <sup>3</sup>		<b>x 3 =</b>
13.6 Does the printed text contrast reasonably with the background? <sup>3</sup>		<b>x 3 =</b>
13.7 Is the user prompted “Do you need more time?” when necessary? <sup>3</sup>		<b>x 2 =</b>
<b>Keypad Feedback</b>		
13.8 Is there visual feedback after the keys have been pressed? <sup>6</sup>		<b>x 3 =</b>
13.9 Is there tactile feedback after the keys have been pressed? <sup>6</sup>		<b>x 3 =</b>
13.10 Is there audio feedback after the keys have been pressed? <sup>6</sup>		<b>x 3 =</b>
13.11 Is there a warning tone when an error has been made? <sup>2</sup>		<b>x 3 =</b>

Part 2: PICT	Answer	Score
<b>Screen (Visual) Display</b>		
<b>General</b>		
13.12 Is the angle of the screen adjustable? <sup>13</sup>		x 1 =
13.13 Is the option to reverse the background and foreground colors available? <sup>2</sup>		x 1 =
13.14 Are the text characters in a plain, easy to read font that is not script or highly stylized ( <i>script like this</i> or <i>highly stylized like this</i> )? <sup>3</sup>		x 3 =
13.15 Is the instructional area of the screen free from advertising? <sup>3</sup>		x 1 =
13.16 Is the screen visible from both a standing and a sitting position? <sup>2</sup>		x 3 =
13.17 Is the screen free from glare caused by any lighting sources such as overhead lights or sunlight? <sup>6</sup>		x 3 =
13.18 Is the screen bright enough to overcome ambient conditions? <sup>2</sup>		x 2 =
<b>Text-related</b>		
13.19 Is the size of the text adjustable? <sup>2</sup>		x 2 =
13.20 Is the contrast of the text adjustable? <sup>2</sup>		x 2 =
13.21 Does the information that is displayed on the screen appear motionless (the text does not move around)? <sup>3</sup>		x 3 =
13.22 Is the background plain (it should not contain patterns or pictures)? <sup>3</sup>		x 3 =
13.23 Is the text a mix of uppercase and lowercase letters? <sup>3</sup>		x 3 =
13.24 Is the text aligned on the left side and jagged on the right? <sup>3</sup>		x 2 =
13.25 Are columns of numbers aligned under the decimal point? <sup>3</sup>		x 2 =
13.26 Are periods, decimals and commas readily visible? <sup>3</sup>		x 2 =
<b>Audio Output</b> This section assesses sounds coming out of the PICT such as voices and tones.		
<b>General</b>		

<b>Part 2: PICT</b>	<b>Answer</b>	<b>Score</b>
13.27 Is the volume adjustable at any point throughout the transaction? <sup>3</sup>		<b>x 2 =</b>
13.28 Is the audio output easy to hear? <sup>3</sup>		<b>x 3 =</b>
13.29 Are the audio instructions and on-screen instructions coordinated? <sup>3</sup>		<b>x 3 =</b>
13.30 Is there at least a three second pause between repeated instructions? <sup>3</sup>		<b>x 2 =</b>
13.31 Is listening to advertising optional? <sup>3</sup>		<b>x 1 =</b>
13.32 Is all audio advertising absent during the transaction? <sup>3</sup>		<b>x 2 =</b>
<b>Audio Options</b>		
13.33 Is a standard audio minijack available for plugging in a headset? <sup>3</sup>		<b>x 3 =</b>
13.34 Is a standard audio minijack located to the right of the screen? <sup>3</sup>		<b>x 3 =</b>
13.35 Is minijack operable with one hand? <sup>3</sup>		<b>x 3 =</b>
13.36 Does the minijack have a raised ridge? <sup>3</sup>		<b>x 2 =</b>
13.37 Is a telephone handset available for listening to the audio information? <sup>3</sup>		<b>x 1 =</b>
13.38 Do audio instructions state the name of the service provider? <sup>3</sup>		<b>x 1 =</b>
13.39 Do the audio instructions include a description of the layout of the keys? <sup>3</sup>		<b>x 2 =</b>
13.40 When the audio feature is activated, is there an option to blank out the screen? <sup>3</sup>		<b>x 1 =</b>
13.41 Is there one voice providing instruction and another voice identifying information the user enters into the PICT? <sup>2</sup>		<b>x 1 =</b>
13.42 Are audio descriptions provided for all graphic images? <sup>2</sup>		<b>x 3 =</b>
<b>Printed Text (such as receipts and tickets)</b>		
13.43 Is all printed information in both uppercase and lowercase letters? <sup>3</sup>		<b>x 3 =</b>
13.44 Is all printed information reasonably large, well contrasted and clear? <sup>3</sup>		<b>x 3 =</b>
<b>SUBTOTAL FOR COMMUNICATION</b>		

Part 2: PICT	Answer	Score
<b>14. OTHER</b>		
14.1 Does the PICT function solely for the purpose that it was designed (e.g. does not have advertising, a tip option, or sales of products such as stamps and gift certificates)? <sup>12</sup>		x 2 =
14.2 Does the PICT recognize the card when it is entered, and offer the user the choice of executing the same transaction that was carried out the previous time it was used (e.g. purchasing the same ticket)? <sup>6</sup>		x 1 =
<b>SUBTOTAL FOR OTHER*</b>		

**\*See the scoring key on page 37 to calculate the accessibility rating for the PICT.**

Include any additional comments related to the accessibility of the PICT in the space provided on the next page.

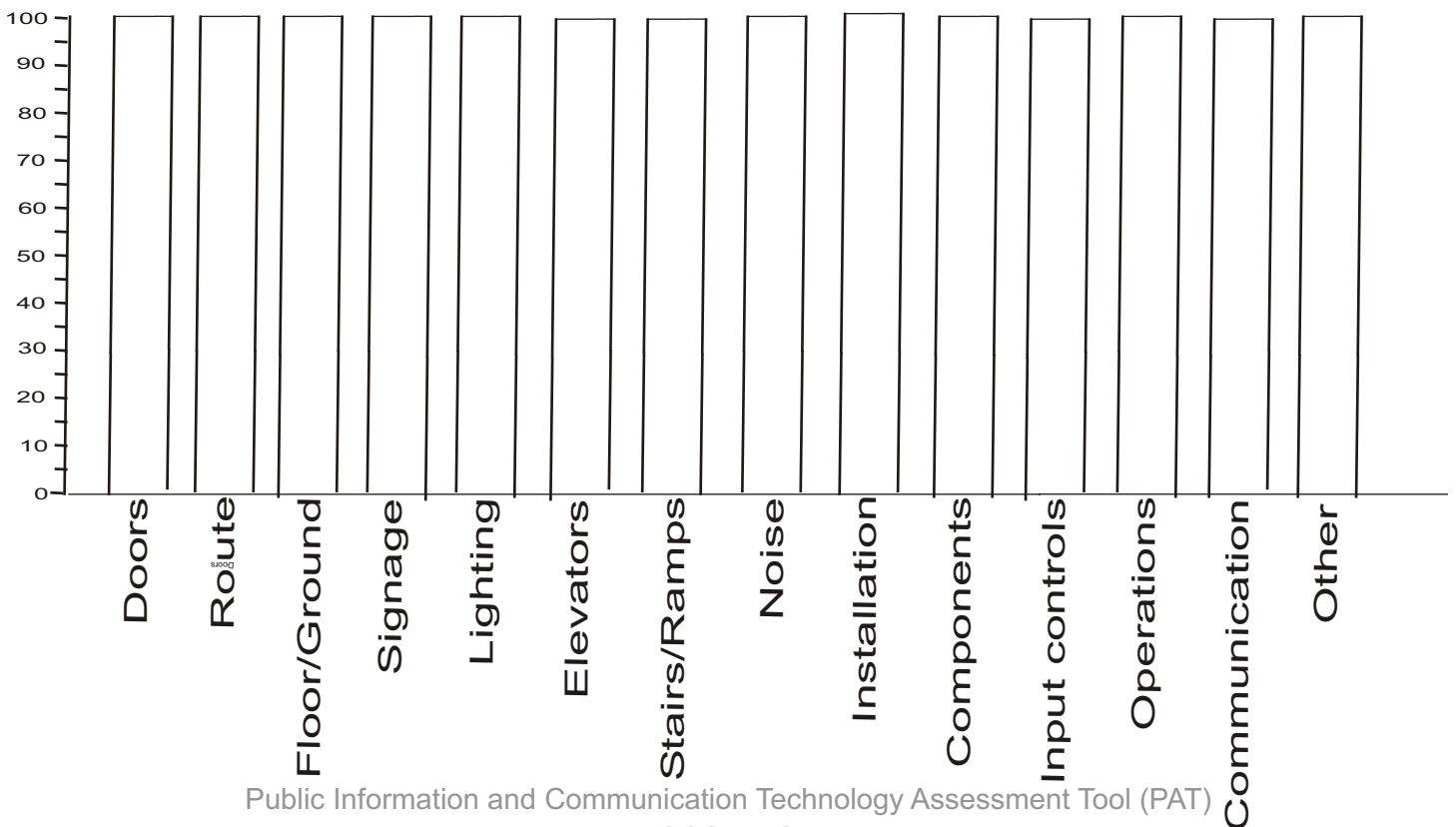


# PAT Scoring Summary Table

	Section	Score	Denominator*	Percentage
<b>PART 1</b>	1		60	
	2		21	
	3		18	
	4		23	
	5		8	
	6		52	
	7		50	
	8		4	
<b>PART 2</b>	9		21	
	10		73	
	11		76	
	12		3	
	13		104	
	14		3	
	<b>Total Part 1</b>		<b>236</b>	
	<b>Total Part 2</b>		<b>280</b>	
	<b>Total Part 1+2</b>		<b>516</b>	

\* note that denominator will need to be adjusted if some items were marked N/A

## PAT Scoring Profile



## Appendix

### I. Guidelines for Improving Accessibility

Item	How feature improves accessibility & Recommendations to improve accessibility
<b>Section 1 - Doors</b>	
1.1	Doors that open automatically improve accessibility by removing the need for physical force to open doors, reducing the risk of injury due to a lack of strength, balance or coordination. Other considerations: One automatic or power-assist door should be available at a building's main entrance since exterior doors are generally heavier and require significant strength to open manually. <sup>1</sup>
1.2	Pressing a button to open a door requires less arm and hand strength as well as less coordination than having to open it manually. A button located between 40-120 cm from the floor allows access from a seated or standing position. Other considerations: If possible, a second button should be installed closer to the floor, to allow a person to use their foot or wheelchair footrest to access the door. Buttons should be marked with an International Symbol of Access. <sup>4</sup>
1.3	Doors that can be fastened open can be used to create a barrier-free path of travel.
1.4	Being able to open a door with one hand decreases the strength needed to access the PICT. Other considerations: Providing they do not protrude into the passageway, push bars should be used wherever possible when the door is to be pushed open. <sup>1</sup>
1.5	Grasping, pinching and twisting requires strength and coordination of the hand and wrist, which may be difficult for people with limited use of their hands and arms, those carrying objects, or those using wheelchairs, mobility aids such as walkers, canes, or service animals, or aids to daily living such as baby strollers or shopping carts. Other considerations: Lever and U shaped handles require less finger strength to operate. <sup>1</sup>
1.6	A door that closes too quickly will not allow enough time for a person to move safely through the door. Other considerations: Door closers can be installed to regulate the length of time it takes for the door to reach a semi closed position. <sup>1</sup>
1.7	Universal symbols such as the International Symbol of Access can be understood without the ability to read written words or understand a particular language. These symbols make it quicker and easier to locate a PICT in its surrounding environment. Universal symbols often use colour contrast to make the symbol more accessible for those with visual impairments such as low vision or colour blindness. Other considerations: Symbols of access should be placed in locations perpendicular to the path of travel for easier identification of the PICT. <sup>1</sup>
1.8	Doorways at least 81 cm (32.5") are wide enough to accommodate people in wheelchairs or those using aids to daily living such as strollers or shopping carts. Other considerations: Although the minimum recommended width for doorways is 81 cm, wider doorways allow for increased accessibility. In existing buildings, swing-clear hinges can be used to meet the minimum width rather than enlarging the door frame. <sup>4</sup>
1.9	A level floor surface on either side of a door provides a safe area of maneuverable space It is also a stable surface for opening doors. Other considerations: The dimensions provided allow access for manual wheelchairs however a larger area would be required for scooters and power wheelchairs. <sup>4</sup>
1.10	A level floor surface on either side of a door provides a safe area of maneuverable space. It is also a stable surface for opening doors. Other considerations: The dimensions provided allow access for manual wheelchairs however a larger area would be required for scooters and power wheelchairs. <sup>4</sup>
1.11	This recommended space next to the latch allows extra space to maneuver . It ensures some space between the wall and the passageway through the door which allows the user to pass safely through.
1.12	A 60 cm wall space beside a door to be pulled open provides enough space for a person to open the door without blocking the path of the door swing. It eliminates the need to move in a backwards direction.

Item	How feature improves accessibility & Recommendations to improve accessibility
1.13	An object positioned between 40 cm and 120 cm (16" and 48") can be reached from various positions making it accessible to individuals of various statures and those in seated and standing positions. Other considerations: Door hardware should contrast in colour to the door to accommodate those with visual impairments. <sup>1</sup>
1.14	Square curbs, uneven flooring transitions, and thresholds higher than 6 mm (1/4") without rounded edges are physical barriers that interfere with the path of travel. Other considerations: Thresholds should have a maximum slope of 1:2 if it is higher than 6 mm. <sup>1</sup>
1.15	When there are two doors in a row, there should be space for the swing range of a door opening or closing plus enough room for a person with a wheelchair, mobility aid, or aid to daily living to either open the door manually or wait for the door to open automatically.
1.16	A power-assisted door should open within three seconds of the sensory activation to avoid disrupting the flow of travel to and from the PICT and to prevent damage to the door from being pushed open if it does not respond efficiently.
1.17	The use of a minimal amount of force to stop a power-assisted door from moving is important for preventing injury of people or objects not fully through the door and out of swing range before the door begins to close automatically. Other considerations: To keep persons with visual impairments from walking into the swing path of the door, guardrails should be installed on the swing side of the doorway at a 90° angle to the wall. <sup>4</sup>
1.18	The addition of a card reader makes the task of gaining access to a PICT more complex. Insertion of the card should make the door open automatically to avoid the user having to manipulate the card while also attempting to open the door manually.
1.19	The lack of standard placement of card readers may make it difficult to locate the card reader, thus restricting access to the PICT. Locating the card reader where it can be easily found in order to gain access to the PICT improves accessibility. Other considerations: The card reader should be located within close proximity to the control button. <sup>4</sup>
1.20	The card reader should be positioned at a height that is accessible to persons of all statures and those that are seated or standing.
1.21	A beveled or rounded edge makes it easier to identify the card reader and can help guide the insertion of the card by defining the orientation of the card reader as well as the boundaries of the card slot.
1.22	Colour contrast makes the card reader more visible by distinguishing it from the remainder of the machine. This is especially important for individuals with visual or perceptual impairments. Other considerations: Colour contrast should be at least 70% with the background. Colour combinations to avoid include yellow/grey, yellow/white, blue/green, red/green, black/violet, red/black. <sup>4</sup>
1.23	Graphic symbols are pictures that represent objects such as the card. They can be understood without the ability to read written words or understand a particular language. Users may find graphic symbols helpful for identifying the card reader and orientation of the card.
1.24	Raised symbols provide tactile information that can be felt through the skin. A person could touch a raised symbol to identify the card reader and orientation of the card.
<b>Section 2 - Accessible Route</b>	
2.1	The pathway should be wide enough to accommodate a person in a wheelchair or those using aids to daily living. It should allow enough room for safe maneuverability. Other considerations: If the pathway is a high traffic area, the width should be at least 150 cm. The wall at the end of a pathway should contrast in colour to the other surrounding walls. Blinds should be used to reduce glare if there is a window at the end of a pathway. <sup>4</sup>
2.2	Protruding objects can be hazardous, especially for people with visual impairments who may not be able to detect them. Objects higher than 68 cm (2' 3") with parts that protrude more than 10 cm (4") will not be detectable to white cane users.
2.3	The average turning radius of a manual wheelchair is 5'. A level area at least 5' square provides room to maneuver a wheelchair, but is also useful for aids such as walkers, shopping carts, and strollers. Other considerations: This area should be independent of the space needed for the door swing. <sup>3</sup>
2.4	Debris and uneven flooring are unsafe physical barriers that interfere with the path of travel.

Item	How feature improves accessibility & Recommendations to improve accessibility
2.5	Colour contrast makes the line-up area more visible by distinguishing it from the rest of the floor. This is especially important for individuals with visual or perceptual impairments. An easily identifiable line-up area orients the user to the location of the PICT. Other considerations: Colour contrast should be at least 70% with the background. Colour combinations to avoid include yellow/grey, yellow/white, blue/green, red/green, black/violet, red/black. <sup>4</sup>
2.6	Detectable warning surfaces are useful for defining edges and transitions by providing tactile feedback in addition to visual information.
2.7	Line-up guides should provide enough room for a wheelchair to maneuver and change directions. They should be wide enough for a wheelchair user to be able to self-propel.
2.8	Colour contrast makes the line-up guides more visible as it distinguishes them from the floor. This is especially important for individuals with visual or perceptual impairments. Other considerations: Colour contrast should be at least 70% with the background. Colour combinations to avoid include yellow/grey, yellow/white, blue/green, red/green, black/violet, red/black. <sup>4</sup>
2.9	Cane-detectable line-up guides increase accessibility for users with visual impairments. Other considerations: Line-up guides that are 68 cm or lower are can detectable. A person's reach varies from 90 to 150 cm depending on the length of their arms. <sup>4</sup>
<b>Section 3 - Floor/Ground Surface</b>	
3.1	Debris and uneven flooring are unsafe physical barriers that interfere with the path of travel. Other considerations: Pathways should be maintained regularly. <sup>4</sup>
3.2	Debris and uneven flooring are unsafe physical barriers that interfere with the path of travel. Seasonal debris makes the path of travel unsafe and/or impassable, depending on the amount of accumulation. Other considerations: Pathways should be maintained regularly. <sup>4</sup>
3.3	High pile, loose weave, and soft underlay can contribute to an unstable surface increasing the risk of tripping or falling. People in wheelchairs may have difficulty moving over a soft surface due to more resistance under the wheels. Other considerations: New carpet can have a scent that may affect individuals with allergies or that are sensitive to smell. Carpet can be purchased where the scent has been removed. <sup>4</sup>
3.4	Grated surfaces should have small openings so that they pose a minimal risk for falls when people walk over them. Heeled shoes, canes and small wheels could potentially get stuck in larger grate openings. Other considerations: If possible, grated surfaces should be avoided within the area of an accessible pathway. <sup>4</sup>
3.5	Grated surfaces should have spaces that cross the dominant direction of travel to avoid having wheels from wheelchairs and other aids to daily living caught in the spaces. Other considerations: If possible, grated surfaces should be avoided within the area of an accessible pathway. <sup>4</sup>
3.6	Accumulated water is a slipping hazard.
3.7	Slip-resistant floors provide better traction and reduce the risk of falls. Other considerations: Material such as clay, concrete, cor, and carpet allow for slip resistant surfaces in both dry and wet conditions. <sup>1</sup>
3.8	Glare reduces visibility, especially for individuals with visual impairments. Other considerations: Reflective surfaces should be avoided along accessible routes to reduce glare. <sup>1</sup>
<b>Section 4 - Signage</b>	
4.1	Directional signs at intuitive decision-making locations improves access to the PICT by defining the path of travel. Other considerations: When choosing a position for the signage, a location that causes shadow or glare should be avoided because it makes the sign difficult to read. <sup>4</sup>
4.2	Using clear and readable characters (i.e. 1,2,3,4 rather than I, II, III, IV) makes signage easier to understand. Other considerations: Font used should be 'sans serif'. The furthest a sign should be located is 30 times the height of the characters (i.e. if the character height is 25 mm, the sign should be located a maximum of 750 mm away. <sup>4</sup>
4.3	Colour contrast makes the letters and numbers more visible by distinguishing them from the background of the sign. This is especially important for individuals with visual or perceptual impairments. Other considerations: Colour contrast should be at least 70% with the background. Colour combinations to avoid include yellow/grey, yellow/white, blue/green, red/green, black/violet, red/black. A contrasting border should be used if the colour of the characters does not significantly contrast with the background. <sup>4</sup>

Item	How feature improves accessibility & Recommendations to improve accessibility
4.4	Jargon, acronyms, and confusing or complex wording make it difficult to read and understand the message on a sign.
4.5	Raised symbols provide tactile information that can be felt through the skin. A person could touch a raised symbol to identify the location of the PICT. Other considerations: Tactile characters should not have a raised border around them., as this makes it difficult to distinguish between characters. <sup>1</sup>
4.6	Raised symbols provide tactile information that can be felt through the skin. A person could touch a raised symbol to identify the location of the PICT. Other considerations: Characters should be in 'sans serif' font. Braille should be included below the character or symbol to describe their meaning. <sup>4</sup>
4.7	Signs with tactile information should be at a height that is accessible from a seated or standing position.
4.8	Universal symbols such as the International Symbol of Access can be understood without the ability to read written words or understand a particular language. These symbols make it quicker and easier to locate a PICT in its surrounding environment. Universal symbols often use colour contrast to make the symbol more accessible for those with visual impairments such as low vision or colour blindness.
<b>Section 5 - Lighting</b>	
5.1	Adequate lighting is necessary for detecting obstacles, locating landmarks and directional signs, and navigating the path of travel safely. Other considerations: Lighting should be at least 100 lx around stairs, curbs, and ramps. <sup>4</sup>
5.2	Bright lighting around stairs, curbs and ramps increases visibility and safety during navigation. Other considerations: Lighting should be at least 100 lx around stairs, curbs, and ramps. <sup>4</sup>
5.3	Glare reduces visibility, especially for people with visual impairments.
<b>Section 6 - Elevators</b>	
6.1	A gap between the elevator floor and the building floor should be small enough for safe movement in and out of the elevator. This helps to minimize the risk of tripping or falling.
6.2	An elevator door with a width of at least 90 cm (36") is wide enough for a person self-propelling a wheelchair or someone using aids to daily living.
6.3	Elevator doors equipped with a sensor to detect obstacles in its path reduce the risk of personal injury or damage to equipment. Other considerations: Door re-opening devices should allow the door to remain open for a minimum of 20 seconds. This allows sufficient time for the object obstructing the door path to be moved. <sup>4</sup>
6.4	Elevator doors should remain open long enough for a person to move safely in or out of the compartment.
6.5	Elevator doors should remain open long enough for a person to move safely in or out of the compartment.
6.6	172 cm x 137 cm is the minimum space required to turn a wheelchair or use other mobility aids in an elevator. Other considerations: If an existing elevator car does not meet the minimum requirements, a mirror can be placed in the back to allow someone facing the rear to see the indicator lights to know which floor they are on. <sup>4</sup>
6.7	Visible and tactile numbers on the outside of the elevator help individuals identify what floor they are on whether or not they are in a seated or standing position.
6.8	Raised symbols provide tactile information that can be felt through the skin. A person could touch a raised symbol to identify the floor number they are on.
6.9	The lack of standard placement of hall call buttons may make it difficult to locate them, thus restricting access to the elevator. Installing th hall call buttons consistently, one above the other, improves accessibility, especially for those with visual impairments. Since elevators move up and down, the logical placement of directional buttons is vertical so that it is intuitive which button controls which function.
6.10	Control buttons should be positioned at a height that is accessible for persons of all statures and those that are seated or standing.

Item	How feature improves accessibility & Recommendations to improve accessibility
6.11	Larger buttons increase the contact area for users, decreasing the need for precise hand control and dexterity to operate the controls.
6.12	Using clear legible letters and numbers (i.e. 1,2,3,4 rather than I,II,III,IV) make the buttons easier to understand. Other considerations: Characters should be in 'sans serif' font. <sup>4</sup>
6.13	Control buttons with raised numerals provide tactile feedback for those users who cannot see or have difficulty reading the buttons. Other considerations: Braille numbering should be placed to the left of the corresponding numbered buttons. Tactile characters should be used to identify the control buttons such as door open/close, emergency alarm and emergency stop. <sup>4</sup>
6.14	Control buttons should be positioned at a height that is accessible for persons of all statures and those that are seated or standing. Other considerations: Emergency control buttons should be grouped together at a maximum height of 89 cm from the floor. <sup>4</sup>
6.15	Larger buttons increase the contact area for users, decreasing the need for precise hand control and dexterity to operate the controls. Other considerations: Buttons should be raised a minimum of 1.5 mm. <sup>4</sup>
6.16	Using clear and legible letters and numbers (i.e. 1,2,3,4 rather than I,II,III,IV) makes buttons easier to read and understand, especially for individuals with visual impairments. Other considerations: Characters should be in sans serif font. <sup>4</sup>
6.17	Control buttons with raised numerals provide tactile feedback for those users who cannot see or have difficulty reading the buttons. Other considerations: Characters should be raised a minimum of 0.8 mm. <sup>4</sup>
6.18	Visual and/or auditory feedback when a button has been pushed or the elevator reaches a floor helps users orientate themselves by providing external cueing. Depending on the disability or impairment a user may have, one form of feedback may be more useful than others, therefore multiple forms of feedback increase accessibility.
6.19	Visual and/or auditory feedback when a button has been pushed provides external cueing to let the person know the button has been pushed. Depending on the disability or impairment a user may have, one form of feedback may be more useful than others, therefore multiple forms of feedback increases accessibility.
6.20	Visual and/or auditory feedback when an elevator passes or reaches a floor helps users orientate themselves by providing external cueing. Depending on the disability or impairment a user may have, one form of feedback may be more useful than other, therefore multiple forms of feedback increases accessibility.
<b>Section 7 - Stairs and Ramps</b>	
7.1	Uniform height and depth makes the stepping pattern predictable and decreases unexpected obstacles created by uneven stairs.
7.2	Higher steps require more strength, balance, and coordination than lower steps.
7.3	Deeper stairs increase the accessibility for individuals with mobility impairments as a larger portion of their feet is supported by the stair giving them increased balance.
7.4	Closed risers can be used to guide ascent and descent, especially while using a cane. Closed risers provide tactile and visual information about the height and position of the stairs.
7.5	Overhanging lips prevent a user from sliding their foot up the riser and onto the next stair. This increases the risk of tripping and falling. Other considerations: Overhanging lips should be avoided however if used should not create an abrupt angle (no less than 60°) with the risers as this will interfere with the ascent and descent on the stairs. <sup>2</sup> They should have a strip of contrasting colour on the visible part of the nosing. <sup>4</sup>
7.6	Detectable warning surfaces are useful for defining edges and transitions by providing tactile feedback in addition to visual information. Other considerations: Should contrast in colour and texture from the staircase itself. <sup>1</sup>
7.7	Detectable warning surfaces are useful for defining edges and transitions by providing tactile feedback in addition to visual information. Other considerations: Should contrast in colour and texture from the staircase itself. <sup>1</sup>

Item	How feature improves accessibility & Recommendations to improve accessibility
7.8	Handrails act as a guide to define the edges of the stairs and serve as a physical support to increase the stability of the user. Other considerations: Circular handrails are preferred, with a diameter of no more than 4 cm to allow easy grasping. Handrails should be installed with a 3.5-4.5 cm gap from a wall with a smooth surface and 6 cm from that with a rough wall surface. <sup>1</sup>
7.9	Handrails on both sides of the stairs allow a person to use them when both ascending and descending the staircase. This is important for people whom only have the use of one side of their body.
7.10	Handrails located between 80 cm and 92 cm are within accessible reaching distance for a person ascending or descending the stairs. At this height they provide maximal stability and guidance for persons with visual or mobility impairments.
7.11	Handrails extending at least one stair width past the staircase provide visual and tactile cues for the location of the stairs and are used to gain balance prior to stepping onto the stair. Other considerations: The handrail at the bottom of the staircase should extend one tread length past the last stair. The handrail should then extend a minimum of 30 cm parallel to the floor for stability and notification of the end of the staircase. The handrail at the top should extend a minimum of 30 cm parallel to the floor. <sup>1</sup>
7.12	Ramps or elevators provide access to different levels when a person is unable to use stairs safely.
7.13	Ramps with an incline that is too steep require more force to move a person or object up and down the length of the ramp safely. This may result in unsafe conditions or in a person requiring assistance to use the ramp. Ramp slopes should be as gentle as possible. Other considerations: Although slopes of 1:12 are acceptable, those that are 1:15 to 1:20 are manageable by most persons. <sup>1</sup>
7.14	Level landings with an area of 150 cm x 150 cm accommodate the turning radius of a standard wheelchair.
7.15	Level landings with an area of 150 cm x 150 cm accommodate the turning radius of a standard wheelchair.
7.16	The pathway should be wide to accommodate a person in a wheelchair with enough room for safe
7.17	Handrails help define the edges of the ramp and serve as a support for people with mobility impairments, including limited strength and balance. Other considerations: The height of the handrails should be between 80 cm and 92 cm from the ramp surface, and should be separated by 92 cm to 100 cm. They should extend 30 cm horizontally past the top and bottom of the ramp. <sup>1</sup>
7.18	Detectable warning surfaces are useful for defining the edges and transitions by providing tactile feedback in addition to visual information. Other considerations: Detectable warning surfaces should contrast in colour and texture from the other surfaces around them. They should be 90 cm long. <sup>1</sup>
7.19	Detectable warning surfaces are useful for defining the edges and transitions by providing tactile feedback in addition to visual information. Other considerations: Detectable warning surfaces should contrast in colour and texture from the other surfaces around them. They should be 90 cm long. <sup>1</sup>
<b>Section 8 - Noise Level</b>	
8.1	High levels of ambient noise can cause distraction or cover the audio output of a PICT.
8.2	High levels of ambient noise can cause distraction or cover the audio output of a PICT.
<b>Section 9 - Installation</b>	
9.1	All operable parts of the PICT should be within the reach range of persons of various statures and those who are seated or standing.
9.2	All operable parts of the PICT should be within the reach range of persons of various statures and those who are seated or standing.
9.3	A PICT with an area for wheelchair footrests provides enough room for a person in a wheelchair to pull up close to the operable parts of the machine in order to carry out a transaction. Other considerations: A forward approach allows the PICT to be accessed by a greater number of people. <sup>3</sup>

Item	How feature improves accessibility & Recommendations to improve accessibility
9.4	Protruding objects can be dangerous for those with visual impairments. Objects higher than 68 cm can not be detected using a visual aid such as a cane. Therefore objects should protrude a little as possible into the path of travel to avoid injury.
9.5	Protruding objects can be dangerous for those with visual impairments. Persons using visual aids, such as a cane, use it to detect the wall in front of them. They require that the wall be close enough that their cane will detect it so they know the PICT is in front of them and they don't walk into it. .
9.6	Protruding objects can be dangerous for those with visual impairments who may not detect them in their path of travel.
9.7	Grab bars are useful for users who require steadying while standing at a PICT and carrying out a transaction. Other considerations: The grab bars should contrast in colour from the background. <sup>3</sup>
9.8	Parcel shelves are useful for providing a work surface for those who can only use one hand to complete a transaction. Other considerations: To avoid injury the edges should be beveled. The shelf should contrast in colour to its background. <sup>3</sup>
9.9	All operable parts of the PICT should be within the reach range of persons of various statures as well as those who are seated or standing.
<b>Section 10 - Components</b>	
10.1	The lack of standard placement of card readers may make it difficult to locate, thus restricting access to the PICT. Installing the card reader in a consistent location makes it easier to find for those with visual or perceptual impairments.
10.2	Graphic symbols are pictures that represent objects. They can be understood without the ability read written words or understand a particular language. Users may find graphic symbols helpful for identifying the card reader and orientation of the card.
10.3	Raised symbols provide tactile information that can be felt through the skin. A person could touch a raised symbol to identify the location of the card reader and to determine the orientation of the card for insertion.
10.4	Consistent set-up and orientation of the care readers help orient a user to the machine.
10.5	A PICT that can read a card swiped in more than one direction increases the usability and decreases the potential for human error, making the PICT easier to use.
10.6	A card reader that is easy to identify by touch orients the user to the machine and reduces the accuracy required for insertion of the card into the machine.
10.7	A beveled or rounded edge makes it easier to identify the card reader and can help guide the insertion of the card by defining the orientation of the card and the boundary of the card reader. A card reader with funneled edges reduces the accuracy required for insertion of the card into the machine, especially for those with visual or perceptual impairments.
10.8	Colour contrast makes the card reader more visible by distinguishing it from the remainder of the machine. This is especially important for individuals with visual or perceptual impairments. Other considerations: Colour contrast should be at least 70% with the background. Colour combinations to avoid include yellow/grey, yellow/white, blue/green, red/green, black/violet, red/black. <sup>4</sup>
10.9	Indicator lights increase the visibility of the PICT components and indicate when the card should be inserted or removed.
10.10	When a transaction is complete, the card should stick out enough that the user can identify the card and grasp the free end for removal.
10.11	Removing the card from the PICT should require minimal force to increase the accessibility of the PICT for persons with decreased strength or fine motor impairments.
10.12	Providing feedback to the user in multiple forms (visual and auditory) increases the accessibility for all users.
10.13	Providing feedback to the user in multiple forms (visual and auditory) increases the accessibility for all users.
10.14	Colour contrast makes the dollar bill reader more visible by distinguishing it from the remainder of the machine. This is especially important for individuals with visual or perceptual impairments. Other considerations: Colour contrast should be at least 70% with the background. Colour combinations to avoid include yellow/grey, yellow/white, blue/green, red/green, black/violet, red/black. <sup>4</sup>

Item	How feature improves accessibility & Recommendations to improve accessibility
10.15	Indicator lights increase the visibility of the PICT components.
10.16	Raised symbols or Braille provide tactile information that can be felt through the skin. A person could touch a raised symbol to identify the location of the bill reader and touch the Braille to determine the instructions for inserting the bills.
10.17	A dollar bill reader that can accept a bill in more than one orientation increases the usability and decrease the potential for human error, making the PICT easier to use.
10.18	Graphic symbols are pictures that represent objects or PICT components. They can be understood without the ability to read written words or understand a particular language. They provide information regarding orientation of the bill in an accessible format.
10.19	Colour contrast makes the coin slot more visible by distinguishing it from the remainder of the machine. This is especially important for individuals with visual or perceptual impairments. Indicator lights increase the visibility of the PICT components. Other considerations: Colour contrast should be at least 70% with the background. Colour combinations to avoid include yellow/grey, yellow/white, blue/green, red/green, black/violet, red/black. <sup>4</sup>
10.20	Graphic symbols are pictures that represent objects or PICT components. They can be understood without the ability to read words or understand a particular language.
10.21	Raised symbols provide tactile information that can be felt through the skin. A person could touch a raised symbol to identify the PICT components.
10.22	Tapered coin slots increase the usability and decrease the potential for human error by guiding coin insertion.
10.23	Colour contrast makes the coin slot more visible by distinguishing it from the remainder of the machine. This is especially important for individuals with visual or perceptual impairments. Indicator lights increase the visibility of the PICT components. Graphic symbols are pictures that represent objects or PICT components. They can be understood without the ability to read written words or understand a particular language. Other considerations: Colour contrast should be at least 70% with the background. Colour combinations to avoid include yellow/grey, yellow/white, blue/green, red/green, black/violet, red/black. <sup>4</sup>
10.24	Tactile symbols can be understood without the ability to read written words or understand a particular language. Raised symbols provide tactile information that can be felt through the skin. A person could touch a raised symbol to identify the PICT components.
10.25	Dispensed items should stick out enough that the user can identify them and remove them without the use of fine hand movements such as pinching. Removing items from the PICT should require minimal force. Other considerations: If the PICT is dispensing dollar bills, they should all be of the same denomination or should be dispensed in order of smallest to largest denominations, with smallest being on the top of the pile. <sup>3</sup>
10.26	Removing items from the tray or bin can be difficult for those with fine motor impairments. A tray that is less than 7 cm deep allows for easier access to the items in the tray.
10.27	Accessing dispenser tray with one hand simplifies the action of removing an item from the PICT.
10.28	Dispensed items should stick out enough that the user can identify them and remove them without the use of fine hand movements such as pinching. Removing items from the PICT should require minimal force.
10.29	A waste container helps to keep the around the PICT free from debris. Other considerations: The waste container should not obstruct a person from using the PICT. <sup>3</sup>
10.30	Visual and tactile symbols allow a person to identify the location of the waste container. They should contrast in colour to their background to allow increased visibility. Other considerations: Colour contrast should be at least 70% with the background. Colour combinations to avoid include yellow/grey, yellow/white, blue/green, red/green, black/violet, red/black. <sup>4</sup>
10.31	The waste container should be within the reach range of persons of various statures and those who are seated or standing. Other considerations: For the average person, maximum forward reach from a seated position is 120 cm from the floor while maximum side reach is 140 cm. <sup>4</sup>
10.32	Accessing the waste container with one hand simplifies the action of discarding waste especially for persons with limited use of one hand.
<b>Section 11 - Input Controls</b>	
11.1	Larger keys increase the contact area for users, decreasing the need for precise hand control and dexterity to operate the controls.

Item	How feature improves accessibility & Recommendations to improve accessibility
11.2	Raised keys provide tactile feedback to help users identify the location of the keys and their organization on the PICT.
11.3	Concave or non-slip keys increase the friction between the key and the activation device (i.e. finger or stylus) and reduce the amount of force needed to press the key.
11.4	Glare makes it difficult to identify PICT components.
11.5	All PICT components should be within the reach range of persons of various tatures and those who are seated or standing. Other considerations: To allow optimal accessibility, the keypad should be angled between 10° to 15°.³
11.6	If the keys are too sensitive, they could accidentally be pressed. Alternatively, if the keys are too hard to press, it may be difficult for users to input their information.
11.7	Being able to correct a mistake decreases the impact of user error on accessibility.
11.8	Voice recognition makes it possible for users who are unable to use the keypad to input information into the PICT. Other considerations: It is important to ensure that the ambient noise around the PICT isn't too high as it can interfere with the voice input function. The microphone should be accessible to persons of all statures including those in a seated or standing position.⁵
11.9	Colour contrast makes the keys more visible by distinguishing them from the remainder of the machine. This is especially important for individuals with visual or perceptual impairments. Other considerations: Colour contrast should be at least 70% with the background. Colour combinations to avoid include yellow/grey, yellow/white, blue/green, red/green, black/violet, red/black.⁴
11.10	Large symbols increase the visibility of the key functions.
11.11	Easy-to-read, clear type increases potential for all users to recognize the key function. Other considerations: Characters on the keys should be in 'sans serif' font to make them easier to read.
11.12	Standard organization of keypads increases the usability of the PICT by making it familiar and easy to remember.
11.13	Marking the central key helps users with visual impairments orient themselves on the keypad.
11.14	A distance of at least 3 mm (1/8") between keys prevents a user from accidently pressing the wrong key.
11.15	The lack of standard placement of PICT components may make it difficult to locate the components as required throughout a transaction, thus restricting access to the PICT. Installing the components in a standard format improves accessibility.
11.16	The distance between function and numeric keys should be great enough to provide visual and tactile separation so that users do not confuse the keys.
11.17	The lack of standard placement of PICT components may make it difficult to locate the components as required throughout a transaction, thus restricting access to the PICT. Installing the components in a standard format improves accessibility.
11.18	Tactile symbols can be understood without the ability to read written words or understand a particular language. Raised symbols provide tactile information that can be felt through the skin. A person could touch a raised symbol to identify the PICT components.
11.19	Tactile symbols can be understood without the ability to read written words or understand a particular language. Raised symbols provide tactile information that can be felt through the skin. A person could touch a raised symbol to identify the PICT components. Tactile symbols can be used in a standard organization so that it is easier for a user to identify the required key or function to carry out a transaction.
11.20	Tactile symbols can be understood without the ability to read written words or understand a particular language. Raised symbols provide tactile information that can be felt through the skin. A person could touch a raised symbol to identify the PICT components. Tactile symbols can be used in a standard organization so that it is easier for a user to identify the required key or function to carry out a transaction.
11.21	Colour coding function keys provides additional visual feedback for users.
11.22	Function keys should match the instructions so that it is clear what the user has to do to continue with a transaction.
11.23	Leader lines indicate the purpose of the function keys, so it is important that they clearly identify a given key function. Colour contrast is used to increase visibility.

Item	How feature improves accessibility & Recommendations to improve accessibility
11.24	Function keys that align with onscreen information allow the user to be sure that they are selecting the desired function when pushing the key. Ensuring this can be viewed from a seated or standing position enables all users to access to the PICT. <sup>5</sup>
11.25	A touch screen that is activated by a prosthetic limb or stylus increases the accessibility of a PICT by providing alternate means for activation.
11.26	A touch screen that is activated by a single point of contact increases the accessibility of a PICT by allowing the user to use one single body part or aid to carry out a transaction.
11.27	Audio information increases accessibility by offering users who are not able to use visual information another means of interacting with the PICT
11.28	Dead areas on the screen help decrease human error by preventing accidental activation of an area on the screen.
11.29	If the touch screen is activated by fingertip withdrawal, the user could pass his/her fingertip over the screen and hear audio output describing the areas being touched. This is especially useful to users with visual impairments.
<b>Section 12 - Operations</b>	
12.1	A PICT that is operable with one hand is accessible to more users, especially those who lack upper extremity function or need to use their other hand to stabilize themselves while positioned at the PICT.
<b>Section 13 - Communication</b>	
13.1	Jargons, acronyms and confusing or complex wording may be difficult to understand. Plain language makes instructions easier to understand. Other considerations: Instructions should be available in more than one language. <sup>3</sup>
13.2	Complicated instructions increase the demand placed on the user while interacting with the PICT.
13.3	Braille makes a PICT more accessible for users who are blind.
13.4	Labels that are worn or unreadable reduce the users ability to quickly and easily identify and use the PICT components.
13.5	Step-by-step instructions simplify the use of the PICT and reduce the memory and sequencing requirements for using the PICT.
13.6	Coloured text that contrasts with the background improves a person with a visual impairment's ability to read the instructions. Other considerations: Colour contrast should be at least 70% with the background. Colour combinations to avoid include yellow/grey, yellow/white, blue/green, red/green, black/violet, red/black. <sup>4</sup>
13.7	PICTs that timeout transactions are less accessible than those that allow the user more time to complete a transaction if they have physical or cognitive impairments.
13.8	Visual feedback allows the user to know when the button has been pressed. This is especially important for those with sensation, cognitive or auditory impairments.
13.9	Tactile feedback allows the user to know when the button has been pressed. This is especially important for those with visual or auditory impairments.
13.10	Audio feedback allows the user to know when the button has been pressed. This is especially important for those with visual impairments.
13.11	Warning tones help users recognize when they have made an error using the PICT. This is especially important for those with visual impairments. Other considerations: The warning tone should continue until the user has cancelled the transaction or until the error has been corrected. <sup>2</sup>
13.12	Adjusting the angle of the screen can reduce glare and make the screen contents easier to view for people of all statures, seated or standing.
13.13	Dark text on a light screen is more accessible for people with visual impairments, while light text on a dark screen reduces glare.
13.14	Plain easy-to-read font is easier to read and less distracting than script font. Other considerations: Text should be written in a 'sans serif' font to allow for easier reading. <sup>3</sup>
13.15	Advertising distracts users from the PICTs purpose and results in visual clutter and interruption of the transaction.

Item	How feature improves accessibility & Recommendations to improve accessibility
13.16	All areas of the screen should be visible from a standing or seated position to make the screens contents easier to view for people of all statures, or those in a wheelchair.
13.17	Lighting or sunlight may make the screen contents difficult to decipher. Glare impairs the user's ability to read the on-screen information.
13.18	The screen display should be bright enough to be able to read, even in a dim setting. This is important for persons with visual impairments as the often have difficulty reading in dim lighting.
13.19	Adjustable font size allows the user to customize the screen according to their requirements or preferences. Other considerations: Recommended font size is 14 point or larger. <sup>2</sup>
13.20	Adjustable contrast allows the user to customize the screen according to their requirements or preferences. Other considerations: Dark text on a light screen is more accessible for people with visual impairments, while light text on a dark screen reduces glare. <sup>2</sup>
13.21	Moving text is more difficult to view and read than stationary text. Other considerations: Moving text should be avoided. <sup>3</sup>
13.22	Plain backgrounds simplify the visual clutter on the screen. Patterning and pictures make it more difficult to distinguish between text and the background.
13.23	Text in a mixture of upper and lowercase letters is easier to read and comprehend than text written in caps.
13.24	Text with left justification is easier to read than text that has both left and right justification.
13.25	Aligning columns of numbers by the decimal points makes it easier to read and understand the numbers and/or calculations.
13.26	Visible periods, decimals, and commas make reading and entering data less confusing.
13.27	Adjustable volume allows users to adjust audio output according to their requirements and/or preferences.
13.28	Low frequencies are easier to hear than high frequencies.
13.29	On-screen instructions that coordinate with audio output helps the user to identify the various steps required to complete the transactions. Visual instructions help to solidify the audio output the user receives.
13.30	A three second pause between repeating instructions allows the user time to process the instructions they heard and respond.
13.31	Audio advertising distracts from the transaction and purpose of the PICT, which can be confusing for some users. Being able to choose to listen to the advertising allows it to be turned off, simplifying the audio output.
13.32	Audio advertising distracts from the transaction and purpose of the PICT, which can be confusing for some users.
13.33	An audio minijack to plug in headphones allows the user to listen to the audio output without the distracting noise from the surrounding environment.
13.34	Standard placement of an audio minijack increases accessibility by helping users quickly and easily locate it.
13.35	A PICT that is operable with one hand is accessible to more users, especially those who lack upper extremity function or need the use of their other hand to stabilize themselves while positioned at the PICT.
13.36	A funnel-shaped minijack plug in opening with raised edges helps to guide the placement of the jack into the outlet.
13.37	A telephone handset allows a person with a visual impairment to use the audio output feature to complete their transaction. Other considerations: Telephone handsets are not preferred because they do not provide hands free function. <sup>3</sup>
13.38	The name of the service provider helps orient the user to the type of device they are using and the purpose of that device.
13.39	Audio description of the layout of the PICT guides users and orients them to the PICT components.
13.40	Being able to blank the screen is important for the confidentiality and privacy of users who are blind or have a visual impairment.

Item	How feature improves accessibility & Recommendations to improve accessibility
13.41	Distinguishable voices for instructions and for dynamic content provides feedback about transaction activities throughout the transaction for users who are visually impaired and/or cannot use the screen.
13.42	Audio descriptions for graphic images is useful for users with visual impairments.
13.43	Text in a mixture of upper and lowercase letters is easier to read and comprehend than text written in caps.
13.44	Printed information that is large, well contrasted and clear is easier to read. Other considerations: Printed text should be at least 14 point, sans serif font. Ink should be checked regularly to ensure the printed text is well contrasted on the paper. <sup>3</sup>
<b>Section 14 - Other</b>	
14.1	If there is advertising on the PICT, a tip option , or if it dispenses tickets, stamps, gift certificates or other products that differ from its main purpose, it may confuse some users.
14.2	User recognition could simplify the transaction process by recognizing and carrying out the user previous transaction.

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## **Related Publications and Presentations**

- Ripat, J., Watzke, J., & Birch, G. (2005). Public information and communication technologies: Improving access or creating new barriers? *OT Now, Sept/Oct*, p. 21-24.
- Ripat, J., Watzke, J., Birch, G., Boucher, N. & Richards, C. (2006). Identifying issues of access to public information and communication technologies. *Canadian Journal of Occupational Therapy, 73*, Supplement 1.
- Flegal, C., Watzke, J. & Ripat, J. (2007). Accessibility and Technology in Public Environments. Festival of International Conferences on Caregiving, Disability, Aging and Technology, Toronto, Ontario
- Ripat, J., Watzke, J., & Birch, G. (2007). *Development of the public information and communication technology assessment tool*. Manuscript submitted for publication.