**NOTES**

* **intend to keep most tags lower-case, except when it has “BNF”, for example. (Microsoft keeps trying to capitalize things that shouldn’t be)**
* **Used html codes in encoded format for displayed text (e.g.** &lt;b&gt;… &lt;/b&gt; **for <b>…</b>)**
* **Used CDATA for more complex text**
* **Used JSON notation for cloze questions**
* **Hierarchies are only used in the index, not the questions section**
* **There will be questions that need to be cloned / removed according to user wishes. Automatic IDs must be assigned for traceability.**
* **Added static text – tried to match Matt’s, but did add to it and separated the demographics section.**
* **Removed “user entry”, which will be handled by JSON or memo-/text-type question**
* **Changed how validation and errors are handled – now always JSON**
* **Added a key to BNF mapping to indicate when a bnf map statement is dependent on a separate question**
* **Added “grouping” attribute to index**
* **Comments with their options will all have unique id’s (starting with c.)**
* **Modified IDs so each starts with a letter then period to fit with xml ID requirements**
* **Added <text> tag to responses**

**<Questionnaire>**: Root element

Questionnaire Information:

* **<QAversion>** = the question/answer version name – format TBD
* **<BNFversion>** = version of the BNF used – format TBD
* **<XMLversion> =** the version of xml document / structure or whatever.
* **<title>** = title of the questionnaire

**<navigation>**: CURRENTLY NOT IMPLEMENTED

* **<navigation> -** This is the default page progression text
  + **<next> -** if the "next" attribute tag is not used. The next page (or group if groups are used) in the index should be used to populate the JSON field.
    - Attribute**:**
      * **type=”json”**
  + **<back>** - if the “back” attribute is not used. The next page (or group if groups are used) in the index should be used to populate the JSON field.
    - Attribute**:**
      * **type=”json”**

**<Index>:** To display the order of questions and page breaks. Navigation should be based on this. Attribute: grouping – can be “pages” or “1”, “2”, “3”, etc.

* **<group>** - There are multiple levels of question groupings. We should be able to identify what level of grouping the user should see. So far we have 5 levels– must have capability to do many levels, although we may manually try to limit them for usability purposes.
  + attributes:
    - **level** – to keep track of what level in the hierarchy we are and useful for navigation (so far have 1-5)
    - **title** – unique identification to be used in navigation and at top of page
    - **comment\_ref** – what comment should be shown if this level of grouping is used for displaying questions (all comments are numbered as “c#”)
    - **next** – text for page progression CURRENTLY NOT IMPLEMENTED
    - **back** – text for backwards page progression CURRENTLY NOT IMPLEMENTED
  + **<instructions>** - text that DOES flow down to sub-elements and SHOULD be displayed on each subgroup/webpage within this grouping.
    - Attributes:
      * **type=”json” –** to indicate that the text should be searched for a JSON clause.
  + **<text>** - text does NOT flow down to sub-elements and should only be shown when this level of grouping is selected.
    - Attributes:
      * **type=”json” –** to indicate that the text should be searched for a JSON clause.
  + **<page>**
    - Attributes:
      * **title**– unique identification to be used in navigation and at top of page
      * **comment\_re**f
      * **next** – text for page progression CURRENTLY NOT IMPLEMENTED
      * **back** – text for backwards page progression CURRENTLY NOT IMPLEMENTED
    - **<instructions>** - text that DOES flow down to sub-elements and SHOULD ALWAYS be displayed.
      * Attributes:
        + **type=”json” –** to indicate that the text should be searched for a JSON clause.
    - **<text>** - text does NOT flow down to sub-elements and should ONLY be shown when this level of grouping is selected.
      * Attributes:
        + **type=”json” –** to indicate that the text should be searched for a JSON clause.
    - **<include>** – if there are questions at this level, this is used to show which questions.
      * Attributes:
        + **qref** – “question reference”
        + **clone\_ref** – when a question will be cloned, automatic numbers will be assigned to the clones. Since we don’t have those numbers, this indicates that each clone of the original question (as identified) should be included. If there are no clones, this entity should not be shown.
      * **<element\_ref>** - When we want to show an element, for example, the title of the question, but not the question itself.
      * **<attribute\_ref>** -When we want to show an element, for example, the id of the question, but not the question itself.

Questions section (hierarchical version)

* **<questions>**
  + **<question>** - may be nested. So far, 4 levels I think.
    - attributes:
      * **id** – always numerical, with periods denoting hierarchical level, starts with “q.”
      * **display\_when** – the question should only appear when the reference question/response option is true.
      * **display\_where** – if the question is dependent on a response, then this denotes whether the question should appear immediately below the response, or after the main question. If this attribute doesn’t exist, then whatever location is specified in the index should be used.
    - **<instructions>** - text that DOES flow down to sub-elements and should be displayed with all sub-questions
      * Attributes:
        + **type=”json” –** to indicate that the text should be searched for a JSON clause.
    - **<text>** - text does NOT flow down to sub-elements and should ONLY be shown with this question (typically is the question itself).
      * Attributes:
        + **type=”json” –** to indicate that the text should be searched for a JSON clause.
    - **<note> -** information to be specially highlighted, regardless of hierarchy
      * Attributes:
        + **type=”json” –** to indicate that the text should be searched for a JSON clause.
    - **<response>** - see below

Responses

* **<response>** - denotes when user will be interacting. May have question text if the type is true/false or cloze.
  + Attributes:
    - **type** - the type of response
      * true/false
      * select one
      * select multiple
      * textbox CURRENTLY NOT IMPLEMENTED
      * memo CURRENTLY NOT IMPLEMENTED
      * cloze (indicates will have text tag which will have JSON) CURRENTLY NOT IMPLEMENTED?
  + **<note>**
    - Attributes:
      * **Type=”json”**
  + **<validation>**
    - **Attributes:**
      * **Type=”json”**
  + **<BNF\_mapping>** = BNF statement to map to (by text for now, but could be ID field)
    - Attributes:
      * **id** – format = b.#
      * **type**=”json”
    - **<when> =** this mapping applies when the stated option id is selected
      * Attributes
        + **ref** – the option id that should be selected for this bnf to apply
  + **<text>** 
    - Attributes:
      * **Type=”json”**
  + **<option>** - for use with select\_one or select\_multi
    - Attribute:
      * **id** – format = The question id plus a period and an upper-case letter
      * **clone –**a question (given next to the “clone” attribute) may need to be replicated based on how a user responds to a question. The clone needs to be given an automatically generated ID, incremental to the previous question. The clone should include all of the original question’s subquestions (preferably found by id number structure, not hierarchical location) and each subquestion / option / cloze id as well as any other ids should be updated. There may be many clones of a question, and clones may be cloned. The IDs must not conflict.
    - **<text>** - text in the option.
      * Attributes:
        + **type=**”json”– to indicate that the text should be searched for a JSON clause.
    - **<validation>** -same as above
    - **<BNF\_mapping>** = BNF statement to map to (by text for now, but could be ID field)
      * Attributes:
        + **id** – format = b.#
        + **type**=”json”
      * **<when> =** this mapping applies when the stated option id is selected
        + Attributes

**ref** – the option id that should be selected for this bnf to apply

* + - **<note>** - additional instructions or information
      * Attributes:
        + **type**=”json”– to indicate that the text should be searched for a JSON clause.

Additional Comments

* **<additional comments>**
  + **<comments>** = identical to questions. ID’s formatted as “c.#”

Static Text:

* **<static\_text>** CURRENTLY NOT ENTIRELY IMPLEMENTED
  + **< title>** - title at the very top of each page
  + **<masthead>** - instructions at the top of each page
  + **<help\_text>** - the text (or image reference?) to use for each “help” button/link
  + **<sign\_in>** - the sign in page
    - **<pgtitle>** - title to be at top of the page
    - **<username>** - text for spot users enter their user name
    - **<no\_account>** - text for button / link if the user doesn’t have an account
    - **<intro\_text>** if additional information is wanted
    - **<instructions>** - if additional information is wanted
    - **<error\_text>** - text to show if the user-name doesn’t exist (e.g. “Invalid user name. Please try again or sign up for an account”)
  + **<sign\_up>** - the sign up for an account page
    - **<pgtitle>** - title to be at top of the page
    - **<intro\_text>** if additional information is wanted
    - **<instructions>** - if additional information is wanted
    - **<name\_taken>** - text to show if the user-name already exists (e.g. “That user name is reserved. Please try a different user name”)
    - **<has\_account>** - text for button / link if the user already has an account
    - **<success>** - text for when creation is successful
  + **<user\_home>**
    - **<pgtitle>**
    - **<intro\_text>**
    - **<instructions>**
    - **<subsection>** - this page had three subsections. This is to create titles for those subsections, plus instructions if needed.
      * **<subsection\_title>**
      * **<subsection\_text>**
    - **<general\_comment\_link>** - in the wireframe = “confused”?
    - **<general\_comment\_text>** - in the wireframe = “send us a comment”
  + **<contact>** - For showing contact information
    - **<pgtitle>** - title of the section / page
    - **<intro\_text>** - text of the section / page
    - **<note>**
    - **<admin>**
      * **<name>**
      * **<email>**
      * **<telephone>**
* **<general\_comments>** - For big, over-all comments CURRENTLY NOT IMPLEMENTED
  + **<pgtitle>** - title of the section / page
  + **<intro\_text>** - text of the section / page
  + **<question>** -- same options as other questions / comments
    - attributes:
      * **id** – “g.#” for “general comment”
    - **<text>** -
    - **<instructions>** information to highlight
    - **<note>** - additional instructions or information
    - **<response>** - see section on response
* **<demographics>** - demographic survey. Format is exactly like the rest of the questionnaire, but this should only show once, and does not have embedded questions
  + **<title>** - title of the web page (probably “demographics”
  + **<subtitle>**
  + **<text>** - text for the webpage
  + **<instructions>** - special instructions that should be highlighted
  + **<question>**
    - Attribute:
      * **id** – format = “d\_#”
    - **<text>** - typically a question
    - **<instructions>** - special instructions that should be highlighted
    - **<response>** - see section on response

JSON:

* **{“attribute”:…}** – the attribute tag to use for text
* **{“cloze”:{ …}}** - For when there is a question within the text of an option. Uses JSON format
  + **id** – format = id of the question/option plus a lower-case letter period in between
  + **type** – the type of input
    - numerical
    - select one
    - select multiple
    - text = small text box
    - memo = big text box
  + **default –** the default option or text to show (there may be text here which is not listed as an option)
  + **error** – text to display if validation attribute is tripped. Over-rides associated text in error section. If this value is not given, the system should assign the value given in the errors section.
  + **option** – an array of options for the user to select from (for use with either “select one” or “select multiple”)
* **{“insert”:{ …}}** – For when user input needs to be inserted into the text of a question, option, or BNF mapping.
  + **cref** – the ID of the cloze from which this text derives.
  + **qref –** the ID of the question from which this text derives (e.g. when we want to insert text from a multi-choice question)
  + **math –** if the user input (numerical) needs to have some math done to it, this says what.
  + **“mod”:{… –** if an the option wording needs to be changed to match the bnf
    - **“option\_ref” –** referencing a question option
    - **“option\_text” –**referencing a cloze option
    - **“bnf\_text” –** the text to be inserted into the bnf
  + **separator –** when multiple options are selected, this is the text in the bnf that should separate the options.
* **{“ident”:[ …]} –** for when a user choice (e.g. multiple choice option) should be searched for to create a bnf phrase
  + **cref**– the ID of the cloze from which this text derives.
  + **option\_text** – the option in the cloze that the user selects
  + **“option\_ref”** –reference number of a question’s option
  + **bnf\_text –** the text to be inserted into the bnf phrase when the before conditions are met if the bnf text is different from the option text (if no “text”, then should insert the option as is)
* **{“validation”:…}** - should not require user to answer a certain way, but only warn them. Can apply to any response, option, cloze statement, etc.
  + **“type”:{… =** types
    - **>0 options**= at least one option was selected
    - **no space** = for textbox, don’t include a space
    - **#.#.#.X<#.#.#.Y** = the value of cloze id.x should be less than the value of cloze id.y
  + **“list”:… =**a list of acceptable characters
  + **“length”:… =** the number of characters (can be used with min/max)
  + **“min”:…** = the value should be below given number
  + **“max”:…** = the value should be above given number
  + **“text”: =** the text to display when the validation argument is tripped.