Many presentation contents are stored on the Web. Difficult to understand what special linkages implicitly in either slides. Support for slide retrieval by generating snippets. Focus on the relations between slides. Analyze the keyword conceptual structure and document structure. Generate snippets for slides by using the relations between slides. Identify the relevant portions of slides.

**Keyword Conceptual Structure & Document Structure**

- Semantic relationships between words by using conceptual dictionary (WordNet)
  - is-a relationship
  - e.g.) apple is-a fruit
  - part-of relationship
  - e.g.) leaf part-of vegetable
- Positional relationships between words by using indents in slides (OpenXML)
  - Slide title is 1st level
  - Depth of the items increases with the level of indentation

**Procedure**

1. Determination of relations between slides based on the keyword conceptual structure and document structure
   - Detailed relationships
     - Explain more detailed information
   - Generalized relationships
     - Explain more generalized information

2. Generate snippets by identifying relevant portions of slides
   - Portion: the set of indentions relevant to words

**Evaluation**

Prototype System

- Correct answers: the most detailed slides by participants

<table>
<thead>
<tr>
<th>Dataset</th>
<th>Slides only</th>
<th>With snippets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture contents</td>
<td>20/24</td>
<td>18/24</td>
</tr>
<tr>
<td>Academic contents</td>
<td>14/24</td>
<td>21/24</td>
</tr>
<tr>
<td>Total</td>
<td>34/48</td>
<td>39/48</td>
</tr>
</tbody>
</table>

- Browse slides with their snippets are useful
- Especially, snippets are helpful for browsing slides in academic contents containing expertise