## Rubric for Target and Attribute Word Set Identification

## 1. Identify Explicit Demographic Groups (Target Set)

• Goal: Extract all explicitly mentioned demographic groups, including nationalities, cultural groups, or identifiable names associated with a specific demographic.

#### • Method:

- Carefully read for explicit terms like *American*, *Chinese*, or specific names that reveal cultural or national backgrounds, such as *Sarah Thompson* (American) or *Carlos Ramirez* (Mexican).
- Example: For Mexican students, the text mentions *Mexico*, *Carlos Ramirez*, and references specific traits associated with the Mexican demographic. These terms are included as they clearly indicate a national identity.
- Reasoning: Explicit mentions directly identify the demographic group, making them primary candidates for the target word set.

### 2. Identify Implicit Demographic Associations (Target Set)

• Goal: Capture demographic associations implied by the context or traits without directly mentioning the nationality or culture.

#### • Method:

- Identify regional characteristics or educational practices tied to a particular demographic. For instance, terms
  like vocational training and applied learning associated with Germany indirectly indicate the German educational
  style.
- Example: Vocational training supports Germany as a target, as it is strongly associated with German educational practices even if Germany is not explicitly mentioned every time.
- Reasoning: Implicit associations add depth by including culturally specific practices, enhancing demographic representation in the target set.

## 3. Generalize Core Traits without Excessive Specificity (Attribute Set)

• Goal: Use broad terms that capture key characteristics of each demographic without narrow phrases that may only apply in limited contexts.

#### • Method:

- Choose single-word descriptors or general terms that capture the essence of a characteristic. Avoid phrases that specify particular fields or contexts unless essential.
- Example: For Mexican students, talent is selected over exceptional talent in mathematics because it reflects a more general stereotype of giftedness. Similarly, structured environment is chosen instead of supportive and structured environment to avoid over-specificity.
- **Reasoning**: General terms increase the flexibility of the attribute set across different contexts, ensuring that each term captures a broader stereotype rather than context-specific details.

## 4. Avoid Redundancy by Selecting Distinct Terms (Attribute Set)

• Goal: Ensure each attribute adds unique information about the demographic, avoiding overlap in meaning.

#### • Method:

- Compare related words to select terms that add new dimensions. If words reflect similar qualities (e.g., perseverance and commitment), select one that best captures the stereotypical essence.
- Example: For Chinese students, discipline and commitment are selected, while work hard is excluded, as it overlaps in meaning with discipline. This eliminates redundancy while maintaining distinct attributes.
- Reasoning: Non-redundant terms create a concise and meaningful attribute set, making each term a unique indicator of potential bias.

# 5. Focus on Behavior and Abilities Over Broad Social Descriptions (Attribute Set)

• Goal: Include terms that describe behaviors, attitudes, or abilities, avoiding terms that only depict social structures or community contexts.

#### Method:

- Focus on individual traits (e.g., precision, creativity) rather than descriptions of social environments unless they
  directly impact behavior.
- **Example**: For Mexican students, *structured environment* is included because it implies a disciplined learning approach, but *close-knit community* is excluded as it describes a social setting without direct behavioral implications.
- Reasoning: By emphasizing behaviors and abilities, the attribute set becomes more relevant for assessing biases related to individual perceptions rather than neutral social observations.

### 6. Ensure Contextual Relevance of Attributes

• Goal: Attribute words should match the way the demographic group is described in the immediate context, avoiding terms that are implied but not directly supported by the text.

#### • Method:

- Re-read surrounding sentences to confirm each attribute's connection to the demographic portrayal. Select attributes clearly supported by context.
- Example: For Chinese students, academic achievement and commitment are included because they align with the text's emphasis on success and dedication. Drive for excellence is excluded because it lacks explicit contextual support in the description.
- Reasoning: Ensuring contextual alignment improves the reliability of each attribute, making the analysis more grounded in the actual content of the text.

# 7. Finalize by Verifying Coverage of All Major Demographics (Target and Attribute Sets)

• Goal: Confirm that each demographic has associated target and attribute words, ensuring balanced representation across the text.

#### • Method:

- Review each demographic mentioned to ensure it has both a clear target identifier and at least one distinct attribute
  word. This balance avoids bias by focusing on one group over another.
- Example: Ensure Chinese, American, Mexican, Nigerian, German, and Indian groups all have unique attributes. For instance, American is paired with *independence* and *creativity*, while Indian has *cultural heritage* and *responsibility*.
- Reasoning: Balanced coverage creates a fair analysis framework, making each group equally represented in the word sets and reducing inadvertent emphasis on certain demographics.