# PowerBuddy for Assessment Item Writing

## Considerations to keep in mind:

- PowerSchool is partnering with Microsoft using their Azure OpenAI services for the initial generated responses.
- PowerBuddy uses GPT-4 Turbo large language model. Prompt engineering, few-shot learning with content filtering, guardrails, and educational context tailor the generated content for K12 education. There is, however, the possibility of
  - Content with mistakes or inaccuracies
  - Errors in content which requires computation, calculation, or mathematical reasoning
  - o Hallucinations, including historical and scientific facts which do not exist
- All content created by PowerBuddy must be reviewed by the user for accuracy before use.
  Please use the thumbs up and thumbs down icons to rate each item's quality. This helps us track what PowerBuddy is doing well and what we need to refine.
- The model is trained using Flesch-Kinkaid reading grade levels, which takes into account aspects like syllabication and vocabulary.

### PowerBuddy's capabilities:

- Creates single items
- Creates items in bulk for assessments
- Creates passage resources for items
- Creates items based on passage resources

### Creating a Single Item:

- Items > New Item (Redesigned) > Properties
- Properties tab: Input basic information, including title, standard alignment, and attributes.
- Build tab:
  - Select the generate item button.
  - Select the target standard.
  - Describe what the item needs to cover.
  - Choose a reading level.
  - Click Generate.
- Review generated items:
  - Check items for accuracy and absence of bias.
  - o Rate items using the thumbs up and thumbs down options.
  - o Click the checkbox and choose Add to Editor for the item you want to use.
  - Update the item properties and select Regenerate to view more item options.

### Generating Items in Bulk:

- Items > Generate Al Items > Settings
- Settings tab: Input a title in place of the user's name; input standard alignment and the source/bank where items should be stored when saved
- Click Save and Continue.
- Select the target standard.
- Describe what the item needs to cover.
- Choose a reading level.
- Click Generate Items.
- Review generated items:
  - o Check items for accuracy and absence of bias.
  - o Rate items using the thumbs up and thumbs down options.
  - o Click the checkboxes and choose Continue to save the items.
  - Update the item properties and select Regenerate to view more item options.
- Review and Accept the items:
  - o Click edit for any item you want to modify in the Redesigned Item Editor.
  - Click accept for items which do not require modification.
  - Click delete for any items you do not want to keep.
  - o Click Review Complete.
  - The items have been saved to the item bank you specified and are ready for future use.
- Coming soon: Multi-language support will allow content creation for native languages and make it possible to build world language assessment content.

#### **Creating Passage Resources:**

- Items > New Resource > Generate Passage
- Describe the content you need.
- Specify length and structure.
- Choose a reading level.
- Choose a language.
- Click Generate.
- Review the passage:
  - o Adjust needs and click Regenerate, or
  - Click Add to Editor.
- Complete the resource information in the editor page.
- The resource is now available for use.

## Creating Items from Content:

- Items > Generate Al Items > Settings
- Settings tab: Input a title in place of the user's name; input standard alignment and the source/bank where items should be stored when saved
- Toggle the Use a Passage switch
- If you would like the passage to be saved in a different item bank, use the Change Item Bank button beneath the toggle switch.
- Choose the method you will use to add a passage:
  - o Generate: use AI to create a new passage
  - Paste: use text copied from another source
  - o Search existing: use a resource already created and available in your site
- Once the passage is available and acceptable, click Save and Continue.
- Select the target standard.
- Describe what the item needs to cover.
- Choose a reading level.
- Click Generate Items.
- Review generated items:
  - o Check items for accuracy and absence of bias.
  - o Rate items using the thumbs up and thumbs down options.
  - Click the checkboxes and choose Continue to save the items.
  - Update the item properties and select Regenerate to view more item options.
- Review and Accept the items:
  - o Click edit for any item you want to modify in the Redesigned Item Editor.
  - o Click accept for items which do not require modification.
  - Click delete for any items you do not want to keep.
  - Click Review Complete.
  - The items have been saved to the item bank you specified and are ready for future use.