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**USING AI APPS TO ASSIST TEACHERS IN
DESIGNING READING AND LISTENING TASKS
FOR GIFTED STUDENTS**

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PART A: INTRODUCTION

1. Rationale of the study

In the 21st-century classroom, the integration of technology into language education is no longer optional but essential - particularly when teaching gifted students, who require differentiated, stimulating, and cognitively challenging instruction. Gifted learners often display advanced linguistic awareness, heightened inference-making ability, and a deep curiosity for complex texts. However, designing appropriate reading and listening tasks that both match their abilities and sustain engagement is a significant pedagogical challenge.

Artificial Intelligence (AI) has emerged as a valuable tool in education, offering personalized and adaptive content. For language teachers, especially those working with gifted learners, AI applications present an opportunity to design reading and listening tasks that are both intellectually stimulating and aligned with assessment standards, such as national gifted exams. Artificial intelligence (AI) experts have hyped its potential to revolutionize education by promoting more personalized learning experiences and significantly enhancing educators' efficiency. Generative AI tools (e.g., ChatGPT, Copilot, Gemini, Claude 3.5) have been leveraged by numerous teachers in their classrooms to help design and modify lesson plans, differentiate instruction, automate grading and feedback, and assist in planning professional learning experiences (Langreo, 2024). While some critics have voiced concern over issues like plagiarism, bias, and data privacy, others suggest that with thoughtful implementation and guidance, it can potentially transform the way we teach and learn (Ng, 2023). AI offers educators who work with students with gifts and talents new ways to tailor educational experiences to the unique cognitive and affective needs of their students (Siegle, 2023).

Despite these promising developments, there remains a gap in research and practical guidance on how English teachers can effectively utilize AI tools to create high-quality reading and listening tasks tailored specifically for gifted students. Many teachers lack the training or confidence to integrate these tools into their instructional design meaningfully. Therefore, this study seeks to explore how AI can be employed to meet the advanced linguistic and cognitive needs of gifted learners.

2. Aim and objectives of the study

The study aims to equip educators with concrete strategies, enhance instructional quality, and ultimately foster deeper engagement and achievement among gifted language learners; explore how AI-powered applications can support English teachers in designing high-level reading and listening tasks for gifted students. Specific objectives include:

- Identifying task types and skill requirements from national gifted English exams.
- Reviewing relevant literature on AI in language education.
- Presenting useful AI tools as well as prompts and practical examples to create challenging reading/listening materials.
- Evaluating student responses and feedback when using AI-assisted resources.
- Evaluating how AI tools help increase teachers' efficiency in designing reading and listening tasks.

3. Scope of the study

This study focuses on reading and listening tasks for 10th gifted students, particularly those preparing for national-level English contests. It examines AI tools available for task creation, with a focus on English comprehension, vocabulary enrichment, and inference-based learning.

4. Significance of the Study

The findings are expected to help English teachers:

- Understand how AI can supplement traditional teaching methods.
- Design differentiated tasks catering to the needs of gifted learners.
- Increase student motivation and performance through adaptive learning platforms.
- Increase teachers' efficiency in designing reading and listening tasks.

PART B: LITERATURE REVIEW

1. Giftedness in language learning and teaching

According to Gagné (2004), gifted learners display above-average abilities in one or more domains. In the context of language learning, this includes advanced comprehension, metalinguistic awareness, and the ability to synthesize abstract content.

François Gagné presents the Differentiated Model of Giftedness and Talent (DMGT) as a comprehensive framework for understanding how innate abilities ("gifts") are gradually developed into high-level performance or competence ("talents") through a complex interaction of personal catalysts (motivation, perseverance) and environmental catalysts (quality of instruction, support from mentors, access to resources). The model challenges simplistic or static notions of giftedness by emphasizing that raw potential alone is not enough; rather, systematic development, support systems, and personal traits are crucial for transforming gifts into real-world achievements.

Gagné's model has become a cornerstone in gifted education, providing a dynamic and holistic approach to program design, student support, and talent identification. It emphasizes that giftedness is not a fixed trait, and talent development requires intentional cultivation through education, mentoring, and life experiences.

For language educators, particularly those working with gifted students, the DMGT suggests that raw linguistic aptitude must be developed with enrichment programs, authentic materials, and challenge-driven tasks - an idea highly compatible with AI-assisted personalized instruction.

2. AI in Language education

2.1. What is Generative AI?

Artificial intelligence, or "machine-learning models that can learn to make predictions based on data" (Zewe, 2023, p. 2), has long been used in schools with instruments like self-adaptive assessments and educational computer games. At the end of 2022, a type of AI became widely available to the public when OpenAI released ChatGPT (<https://chatgpt.com>), now in its GPT-4o iteration and offering a GPT-4o mini version with knowledge through 2023. This generative artificial intelligence (GenAI) is a different form of machine-learning model that is

trained to “create new data, rather than making a prediction about a specific dataset” (Zewe, 2023, p. 2). There are now numerous useful GenAI tools that can help educators customize lesson plans, differentiate activities, create presentations, grade student work and provide feedback, and modify instruction.

2.2. AI in Language education

Recent studies (Luckin et al., 2016; Holmes et al., 2019) have demonstrated how AI-powered tools can personalize learning experiences and generate tasks aligned with learners’ proficiency. Key benefits include:

Personalized learning: Educators can provide tailored learning experiences based on AI-driven analytics that provide valuable insights into student performance and learning trends. Using this data, AI can instantly adapt student learning materials. Teachers can then use this information to provide personalized learning experiences, adapting to each student’s strengths, weaknesses, and learning pace - a crucial factor for gifted learners who require accelerated or enriched pathways.

Creating and supplementing content: Through AI-powered platforms, teachers can curate a range of educational resources. With generative AI in particular, teachers are able to create lessons, activities, assessments, prompts for discussion, and presentations simply by providing a short prompt with keywords. This allows for quick development of differentiated materials, including extension tasks for advanced learners.

Productivity and efficiency: Greater efficiency comes with AI as well. Educators are responsible for a variety of clerical tasks, such as communicating with students and their families, grading assessments, and providing feedback. Educators may find they spend more time on these clerical tasks rather than on teaching and working directly with students. The right AI tools can help to automate or streamline these tasks, which allows teachers to have additional time with their students.

Real-Time Feedback and Error Correction: AI tools like Grammarly, Write & Improve, and speech recognition apps provide immediate corrective feedback on students’ writing or speaking performance. This supports independent learning and self-monitoring, especially for gifted students who benefit from rapid, high-quality feedback to refine their language skills.

Adaptive Assessment and Progress Tracking: AI can administer dynamic assessments that adjust in difficulty based on the student’s responses. Learning platforms like ReadTheory or Quillionz track progress and identify patterns in comprehension, allowing for data-driven differentiation and targeted remediation or enrichment.

Exposure to Authentic Language Input: AI facilitates access to authentic and up-to-date language resources, such as AI-transcribed podcasts, video subtitles, or news summarizers. These tools help students engage with real-world language across topics, genres, and accents, which is especially engaging for high-ability learners.

Enhanced Student Engagement: Interactive AI tools - including gamified language apps, conversational bots, and immersive environments - increase motivation and encourage active participation. Gifted students, who often seek autonomy and novelty, respond well to such engaging, self-directed tools.

PART C: PRACTICAL IMPLICATIONS

1. Task types and skills

Examination analysis: Reading and Listening tasks for gifted students

LISTENING SECTION (5.0 points): 4 parts and 25 items

Part	Task type	Item count	Cognitive demand	Skilled assessed
Part 1	Speaker identification (M/F/B)	5	Distinguishing speakers and paraphrased content	Attentive listening, speaker perspective
Part 2	Matching (A–J options)	5	Inference from real-world context	Mapping factual/causal details
Part 3	Multiple choice (A/B/C/D)	5	Topic-specific listening (hurricanes)	Gist, inference, exception, comparison
Part 4	Summary completion (1–3 words)	10	Detailed listening and accurate word capture	Vocabulary, paraphrasing, comprehension

READING SECTION (5.0 points): 5 parts and 50 items

Part	Task type	Item count	Cognitive demand	Skilled assessed
Part 1	Cloze – Word Fill	10	Lexical collocation, text cohesion	Contextual vocabulary
Part 2	True / False / Not Given/ Summary completion	10	Critical reading, inference	Fact-checking, scanning
Part 3	Gapped Text	10	Syntax awareness, verb tense agreement	Editing, grammar knowledge
Part 4	Multiple Choice	10	Thematic understanding, logic, inference	Argument analysis, reference
Part 5	Matching ideas to sections	10	Skimming and identifying key concepts	Section matching, synthesis

2. Suggested AI tools and sample tasks

AI tools	Use case	Sample task aligned to exam type
Quillionz, Scribe AI, Perplexity	Generate MCQs from authentic reading texts, true/false/ not given, summary completion	Create questions like Q41–54 (true/false/ not given and summary completion); questions like Q76–85 (examining inference, argument logic)
ChatGPT / OpenAI	Create listening gap-fill or summary tasks from	Design Part 4 listening summaries on different

	transcripts	topics
YouTube + AI Subtitling (e.g. FluentKey)	Turn real videos into listening MCQs	Use TED-Ed on a specific topic for inference-matching tasks (Part 2)
LingoClip / LyricsTraining	Cloze tasks with music or video clips	Practice listening for gist/detail with real conversations
Newsela / Rewordify	Simplify or adjust authentic texts for scaffolding	Reformat passages for tiered comprehension tasks
Textivate	Create matching, sequencing, and gap-filling games	Convert reading paragraphs into drag-and-drop or matching tasks
Vocaroo + AI transcription	Create personalized listening tasks from teacher/peer speech	Record opinion pieces to mirror Part 3 listening questions
SummarizeBot or TLDR	Generate tiered summary activities - e.g., one-sentence, 50-word, or 100-word versions	Reading part 2 and Listening part 4

3. Strategy for implementation

- **Clear and detailed prompts:** Guide AI tools to generate accurate, focused, and creative responses, enhancing productivity and improving interaction quality.
- **Start Small:** Introduce one AI tool per unit to avoid overwhelming both teacher and students.
- **Align with Learning Outcomes:** Use the national gifted exam as a blueprint for skill focus.
- **Student Involvement:** Let gifted students generate their own AI-based questions or tasks.
- **Feedback Collection:** Use surveys or AI analytics to track engagement and accuracy.

4. Suggested samples

4.1. Listening tasks

When designing advanced listening tasks using AI tools (e.g. ChatGPT, Elicit, or AI in EdTech platforms), your prompts need to clearly describe the type of input, format, and level of cognitive demand you are targeting. Below are the core skills assessed as well as useful, structured prompts you can use when working with AI tools to create listening tasks similar to national gifted exams.

4.1.1. Suggested prompts for listening part 1

Core skills assessed:

- **Speaker identification:** Discerning who says what - key to success in this format.
- **Inference and interpretation:** Requiring the listener to infer what's implied rather than directly stated.
- **Comparison of viewpoints:** Evaluating differences and overlaps between the male and female speakers' perspectives.

- **Topic-specific vocabulary recognition:** Requiring familiarity with terms related to certain topics.
- **Critical listening for nuance:** Differentiating between subtly expressed ideas and tones. (especially important at C2 level)

Suggested AI prompt:

Based on the script, create a listening comprehension task where C2 students must identify who expresses which opinion, or if both speakers agree. The format should follow this pattern: For each statement, students must decide whether the opinion is expressed by the male speaker (M), the female speaker (F), or Both of the speakers (B). Please generate **5 items** based on the opinions stated in the dialogue. Ensure statements are paraphrased from the script to test inference and understanding, not just direct recall.

- Avoid using exact wording from the script.
- Include a mix of individual opinions and shared views.
- Make sure the statements test understanding of main ideas or attitudes, not just facts.
- Make sure core skills assessed in the task: speaker identification, inference and interpretation, comparison of viewpoints, topic-specific vocabulary recognition, critical listening for nuance.

Sample 1: For questions 1 - 5, listen to a conversation on current issues in education and decide whether the following are mentioned by only one of the speakers, or by both of them. In the corresponding numbered boxes provided,

write **M** for the **Male** speaker;

F for the **Female** speaker;

B for **Both** of the speakers.

1. Educating children at home with support from other families is a positive initiative.
2. Experiencing difficulties can help children grow stronger.
3. Alienated youth can become a serious problem in society.
4. Organising meaningful activities is easier with small groups of children.
5. Many new educational reforms just add more work for teachers without clear benefits.

Answer keys:

1. **M** – The man expresses excitement about the Guthries' decision to start a home-based school.
2. **F** – The woman refers to the theory that dealing with problems builds strength.
3. **B** – Both acknowledge the risks of disaffected youth causing issues in society.
4. **B** – Both agree smaller groups allow for more flexible and varied learning activities.
5. **F** – The woman criticizes the burden of constant educational change on teachers.

(Script and audio file: See Appendix 1)

4.1.2. Suggested prompts for listening part 2

Core skills assessed:

- **Listening for specific information:** Students must extract details from a longer spoken text and connect them to the correct entity.
- **Interpretation and inference:** Some statements require students to infer cause-effect relationships or implied meaning, not just recall.
- **Paraphrase recognition:** Students need to understand domain-specific vocabulary and connect it globally.
- **Discrimination between similar ideas:** Distractors may contain similar wording but differ in meaning. This skill checks whether students can distinguish nuanced differences.

Suggested AI prompt:

- Use the following script of the news report on [topic] to generate a **matching task** for advanced learners.
- Structure the task with two columns:
Column I lists **5 key topics or entities** (e.g. countries, organizations, ecosystems, policies, etc.).
Column II contains **10 descriptive statements**, some of which are explicitly stated and others implied in the audio.
- Ask students to match each topic/entity in Column I with the most accurate description from Column II, based on the listening.
- Format the task following the model below. (Provide the apps with the model by uploading a file or an image of the model)
- Provide the gap-fill version of the passage, and an answer key with detailed explanations.

Sample 2: For questions 6 - 10, listen to a conversation on how advances in artificial intelligence are changing our work and match each number (6 - 10) in Column I with one letter (A - J) in Column II to make a correct statement according to what is stated or implied by the speaker(s). Write your answers in the corresponding numbered boxes provided.

Column I	Column II
6. Truck drivers	A. are fully secure from AI and unlikely to change in the future. B. are expanding rapidly due to growing needs in manufacturing.
7. Creative jobs	C. rely on empathy and human connection, may be safest with human-centered tasks. D. follow predictable patterns and are among the first to be automated by AI.
8. Emotional/ social intelligence jobs	E. benefit most from AI by eliminating nearly all human involvement. F. will disappear when machines gain emotional and social awareness.
9. Structured jobs	G. require regular retraining and more societal investment in education. H. involve originality and innovation and work best when combined with digital understanding.
10. Mid-career	I. are ideal for those who blend liberal arts skills with technology expertise.

J. were once seen as automation-proof but are now being replaced by robotic vehicle systems.
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Source: <http://www.npr.org/2017/09/04/548505776/what-parts-of-the-workforce-might-be-safe-from-robots>

Answer keys:

6. J	7. H	8. C	9. D	10. G
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(Script and audio file: See Appendix 2)

4.1.3. Suggested prompts for listening part 3

According to Cambridge CPE Handbook, the following four types of MCQs are carefully crafted to evaluate a spectrum of advanced listening skills - ranging from literal comprehension to higher-order interpretation. This ensures CPE candidates can follow complex discussions, infer subtle meanings, and analyze speaker perspectives - crucial abilities at the C2 proficiency level.

Core skills assessed:

- **Listening for specific information:** Students must extract details from a longer spoken text and connect them to the correct entity.
- **Listening for main ideas or central themes:** Students must summarize and grasp overall meaning.
- **Listening for speaker's attitudes or evaluations:** Students must identify personal or contrasting views
- **Interpretation and inference:** Students must draw conclusions beyond explicit statements.

Suggested AI prompts:

Detail Prompt	Question	Create multiple-choice questions that assess the listener's ability to recall specific factual details from the audio. Ensure that distractors are plausible but clearly incorrect if the listener pays close attention.
Gist Prompt	Question	Develop multiple-choice questions that test understanding of the overall meaning, purpose, or main idea of a segment of the recording. Avoid focusing on minor details.
Opinion Prompt	Question	Construct multiple-choice questions that require listeners to identify the speaker's viewpoint, attitude, or emotional response. Use vocabulary that reflects evaluation or judgment.
Inference Prompt	Question	Write multiple-choice questions that assess the listener's ability to draw conclusions based on implied meaning rather than explicit statements. The correct answer should require interpretation or reading between the lines.
Master Prompt (for mixed question types)	Prompt	Based on the following listening script or recording, create five CPE-style multiple-choice questions. Use a mix of question types: 1 detail, 1 gist, 1 opinion, 1 inference, and 1 global understanding question. Each question should have 4 answer options (A–D) and a brief explanation for the correct answer.

Sample 3: For questions 11-15, you will hear part of an interview about cultural identity and choose the correct answer A, B, C or D which fits best according to what you hear. Write your answers in the corresponding numbered boxes provided.

11. *In reflecting on his own cultural self-conception, what aspect does Colin Fraser underscore?*

- A. His capacity to maintain stability amidst cultural transitions
- B. His unconventional familial and cultural lineage
- C. His proficiency in assimilating into diverse environments
- D. His subjective experience of social estrangement

12. *Which element does Colin Fraser identify as the most pivotal in shaping an individual's cultural affiliation?*

- A. An inherent sense of ancestral entitlement
- B. The emotional resonance it evokes
- C. Geographical closeness to one's cultural roots
- D. Tangible emblems and customs of tradition

13. *To what factor does Colin attribute the impact a culture has on individuals or groups?*

- A. The transmission of intellectual and philosophical insights
- B. Interconnectedness among diverse communities
- C. Awareness and understanding of personal heritage
- D. Engagement with traditional and ceremonial practices

14. *According to Colin, what characteristic enables a culture to attain prominence and efficacy in a globalized context?*

- A. Its inherent disposition toward inclusivity and acceptance
- B. Its deliberate disengagement from dominant cultural narratives
- C. Its competency in mediating and resolving intra-cultural tensions
- D. Its humility and capacity for self-reflection

15. *Throughout the dialogue, Colin's commentary primarily focuses on _____.*

- A. Differentiating between one's place of origin and current domicile
- B. Promoting the recognition and appreciation of cultural legacy
- C. Emphasizing sociocultural divergences among populations
- D. Examining the complexities arising from cultural intersectionality and dissonance

Answer keys:

11. B	12. B	13. C	14. A	15. B
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(Script and audio file: See Appendix 3)

4.1.4. Suggested prompts for listening part 4:

Core skills assessed:

- **Listening for Gist and Detail:** Students must understand the overall message and specific points from a spoken passage.
- **Recognizing paraphrase and synonyms:** The summary uses different wording from the audio. This tests students' ability to connect paraphrased information accurately.

- **Vocabulary and collocation awareness:** Students need to recognize which words fit grammatically and semantically into the gaps.
- **Note-Taking and prediction:** Students should be able to predict the type of word needed (noun, verb, adjective) from the grammar of the sentence, and listen actively for it.
- **Inferring meaning and attitudes:** Students must understand the speaker's viewpoint.

Suggested AI prompt:

- Use the following script of the news report on [topic] to generate a **concise summary** (about 200 words).
- Then, create a gap-fill task from that summary with **10 blanks**.
- Students are required to fill in **NO MORE THAN THREE WORDS** taken exactly from the listening passage.
- Make sure core skills assessed in the task: listening for specific information, understanding paraphrasing, inference and interpretation, discourse comprehension, lexical accuracy, understanding attitude and tone.
- Do NOT change the form, spelling, or word order of the original words from the audio.
- Format the task following the model below. (Provide the apps with the model by uploading a file or an image of the model)
- Provide the gap-fill version of the passage, and an answer key with detailed explanations.

Sample 4: For questions 16 - 25, listen to part of a talk about seeing faces in objects and complete the following summary. Write NO MORE THAN THREE WORDS taken from the recording for each space. Write your answers in the corresponding numbered boxes provided.

Humans often perceive faces in ordinary objects - a trick of perception known as face pareidolia - even though these visions are merely a (16) _____. A glimpse of someone's face can tell us whether we recognize someone, gauge their mood, or assess their attention, and we even use facial cues to (17) _____ about trustworthiness or aggression. Whenever we see something, our brain instantly starts working to identify the (18) _____ by referencing our expectations and prior knowledge. In one experiment, participants reported seeing faces in over 35 percent of (19) _____, despite no actual forms. These illusory faces may be a byproduct of something (20) _____. But for (21) _____ to be more helpful than harmful, our brains also need to be quick at determining when a face is real and when it isn't. Researchers employed (22) _____ via magnetoencephalography to measure the magnetic fields from neuronal currents at millisecond precision. Moreover, by (23) _____ these brain regions, we can further impact our ability to distinguish reality from illusion. In one study, researchers have shown that by stimulating the (24) _____, observers looking at a non-face object can briefly perceive facial features even though the stimulus hasn't changed. Pareidolia isn't unique to the human experience, suggesting this phenomenon resides within our (25) _____. So, next time you spot a face in an object, it's just your brain working overtime not to miss the faces that really matter.

Source: <https://www.youtube.com/watch?v=zpOoBtFNYuw>

(Script and audio file: See Appendix 4)

Answer keys:

- | | |
|-------------------------------|----------------------------|
| (1) distortion of reality | (6) hyper(-)sensitivity |
| (2) make snap(-) judgements | (7) brain imaging |
| (3) new visual stimuli | (8) messing with |
| (4) pure(-)noise images | (9) fusiform face area |
| (5) evolutionary advantageous | (10) social primate brains |

4.2. Reading tasks

4.2.1. Suggested prompts for reading part 1

After selecting an authentic, C1-C2 level article (about 250 words) from a reliable online source related to environmental issues, education, or technology, teachers can give the following prompts to AI tools.

- Adapt the passage into a cloze test by removing **10 words** that are part of **fixed phrases or common collocations**.
- The missing words should be challenging for grade 12 English majors in a high school for gifted students.
- Do not remove random function words.
- Design the task so that each blank can only reasonably be filled with one correct answer.
- Provide clear task instructions, the gap-fill version of the passage, and an answer key.

Teachers can also give more detailed prompts if necessary to get the satisfactory products. For example:

- **Language Level:**

Ensure the selected text is at **C1-C2 CEFR level**.

Look for complex sentence structures, academic vocabulary, idiomatic expressions, and formal register.

- **Gap Selection:**

Identify **10 gaps** focusing on: Fixed phrases, Idiomatic expressions, Academic collocations (verb-noun, adjective-noun, preposition combinations)

Do **not** leave gaps for random single words like articles, unless they are part of a fixed phrase.

- **Gap Difficulty:**

Gaps should test students' understanding of: Contextual vocabulary, Usage of common but advanced collocations, Precision in word choice for cohesive writing

Avoid gaps that can be guessed purely based on grammar.

- **Task Design:** Provide clear instructions: "*Read the following passage and fill in each of the numbered spaces with ONE suitable word.*"

- **Additional Features:**

- Include an answer key with the correct collocations.

- Optionally, provide a short glossary of key words (if needed).
- Make sure the passage flows naturally despite the gaps.

Sample 5: Read the following passage and fill in each of the numbered spaces with ONE suitable word.

Fake Rolex Watches

Rolex is one of the most sought (31) _____ brand names in the timepiece industry. (32) _____ from the design and movement of a Rolex to its price screams quality. Thanks to the outrageous prestige of the Rolex brand, Rolex watches are (33) _____ the world's most copied luxury items. In recent years, Rolex forgeries have become so good that the (34) _____ of the best are now virtually identical to the real thing.

It (35) _____ without saying that thrift motivates informed fake Rolex purchases. Most people simply don't have the money to purchase the genuine article. But what about those who are unwittingly (36) _____ into buying a fake Rolex? How can they (37) _____ being scammed?

There is only one way to tell a high-quality Rolex knock-off (38) _____ the real deal and that is to get an expert to open up the watch. At this point, most experts, most of the time, can spot a fake by looking at the watch's movement. But not always. Sometimes, even experts can have a hard time telling fake and genuine Rolexes (39) _____. Thus, there really is only one fail-safe way for would-be Rolex owners to avoid being inadvertently caught (40) _____: purchase their watch from a reputable Rolex dealer.

Source: <https://www.swisswatchexpo.com/thewatchclub/2017/11/17/is-that-a-real-rolex/>

Answer keys:

31. after	32. Everything	33. among	34. best	35. goes
36. duped/ tricked	37. avoid	38. from	39. apart	40. out

4.2.2. Suggested prompts for reading part 2

Task 1. True/False/Not Given (T/F/NG)

When selecting a text for the task, it is important to choose an authentic, academically suitable article of about 1000 words from reliable sources like academic books, journals, or reputable websites such as The Guardian, BBC, or Scientific American. The text should match the C1–C2 CEFR level, presenting complex ideas, implicit meanings, advanced academic vocabulary, and formal, sophisticated language to challenge learners' comprehension.

For the True/False/Not Given task, six intellectually challenging questions should be created using paraphrased language and rich vocabulary, avoiding direct quotes. This design encourages close reading rather than surface-level strategies. Questions must focus on specific, detailed content, testing students' ability to distinguish between explicit statements, implied ideas, and absent information, using nuanced wording to avoid simple keyword matching.

Additionally, not all items should be fact-based; some should require higher-order thinking, such as making inferences, analyzing tone or argument, and differentiating between examples and main points. These features ensure the task promotes analytical reading skills essential for advanced learners preparing for national exams.

Suggested AI Prompt:

Based on the provided academic text, generate **6 challenging True/False/Not Given questions**. Make sure the questions use **paraphrased, sophisticated wording** and require careful reading to identify whether the information is clearly stated, implied, or not present in the text. The questions should be suitable for grade 12 English majored students preparing for a national gifted student examination.

Task 2. Summary completion

When designing the summary and gap-fill task, begin by writing a concise 120–150 word summary of the selected article. This summary should clearly present the main ideas and key details using paraphrased, academic language, with lexical variety and syntactic complexity while preserving the original meaning.

Next, create a gap-fill exercise with eight blanks focusing on essential content words (nouns, verbs, adjectives, adverbs) rather than function words. All correct answers must be exact phrases taken from the original article. The instructions should clearly state: ***"Read the summary below and fill in each space with NO MORE THAN THREE WORDS taken from the passage."***

Gaps must be carefully placed to test students' ability to identify specific information and recognize paraphrased content, requiring thorough comparison with the original text. The task should challenge their reading and retrieval skills.

To support the task's reliability, an answer key and a detailed distractor analysis for the T/F/NG questions should also be provided. This analysis helps identify why incorrect options may seem convincing and offers insights into common student errors, supporting more focused instruction.

Suggested AI Prompt:

Based on the provided article, create a **summary paragraph (120-150 words)** using paraphrased academic language. Then design a **gap-fill exercise with 8 blanks**. For each blank, the correct answer should consist of **NO MORE THAN THREE WORDS taken directly from the original text**. Select words that test students' ability to find specific, critical information and require careful reading and understanding. The exercise should be suitably challenging for grade 12 English majored students preparing for a national gifted student exam.

Sample 5: Read the following passage and do the tasks that follow.

THE SEEDHUNTERS

With a quarter of the world's plants set to vanish within the next 50 years, Doug Alexander reports on the scientists working against the clock to preserve the Earth's botanical heritage.

They travel the four corners of the globe, scouring jungles, forests and savannas. But they're not looking for ancient artefacts, lost treasure or undiscovered tombs. Just pods. It may lack the romantic allure of archaeology or the whiff of danger that accompanies going after a big game, but seed hunting is an increasingly serious business. Some seek seeds for profit – hunters in the employ of biotechnology firms, pharmaceutical companies and private corporations on the lookout for species that will yield the drugs or crops of the future. Others collect to conserve, working to halt the sad slide into extinction facing so many plant species.

Among the pioneers of this botanical treasure hunt was John Tradescant, an English royal gardener who brought back plants and seeds from his journeys abroad in the early 1600s. Later, the English botanist Sir Joseph Banks – who was the first director of the Royal Botanic Gardens at Kew and travelled with Captain James Cook on his voyages near the end of the 18th century – was so driven to expand his collections that he sent botanists around the world at his own expense.

Those heady days of exploration and discovery may be over, but they have been replaced by a pressing need to preserve our natural history for the future. This modern mission drives hunters such as Dr Michiel van Slageren, a good-natured Dutchman who often sports a wide-brimmed hat in the field – he could easily be mistaken for the cinematic hero Indiana Jones. He and three other seed hunters work at the Millennium Seed Bank, an £80 million international conservation project that aims to protect the world's most endangered wild plant species.

The group's headquarters are in a modern glass-and-concrete structure on a 200-hectare Estate at Wakehurst Place in the West Sussex countryside. Within its underground vaults are 260 million dried seeds from 122 countries, all stored at -20 Celsius to survive for centuries. Among the 5,100 species represented are virtually all of Britain's 1,400 native seed-bearing plants, the most complete such collection of any country's flora.

Overseen by the Royal botanic gardens, the Millennium Seed Bank is the world's largest wild-plant depository. It aims to collect 24,000 species by 2010. The reason is simple: thanks to humanity's effort, an estimated 25 per cent of the world's plants are on the verge of extinction and may vanish within 50 years. We're currently responsible for habitat destruction on an unprecedented scale, and during the past 400 years, plant species extinction rates have been about 70 times greater than those indicated by the geological record as being 'normal'. Experts predict that during the next 50 years a further one billion hectares of wilderness will be converted to farmland in developing countries alone.

The implications of this loss are enormous. Besides providing staple food crops, plants are a source of many medicines and the principal supply of fuel and building materials in many parts of the world. They also protect soil and help regulate the climate. Yet, across the globe, plant species are being driven to extinction before their potential benefits are discovered.

The world Conservation Union has listed 5,714 threatened species worldwide, but it admits this is only scratching the surface. With only four per cent of the world's described plants having been evaluated, the true number of threatened species is sure to be much higher. In the UK alone, 300 wild plant species are classified as endangered. The Millennium Seed Bank aims to ensure that even if a plant becomes extinct in the wild, it won't be lost forever. Stored seeds can be used to help restore damaged or destroyed environments or in scientific research to find new benefits for society – in medicine, agriculture or local industry – that would otherwise be lost.

Seed banks are an ‘insurance policy’ to protect the world’s plant heritage for the future, explains Dr Paul Smith, another Kew seed hunter. “Seed conservation techniques were originally developed by farmers,” he says. “Storage is the basis what we do, conserving seeds until you can use them – just as in farming.” Smith says there’s no reason why any plant species should become extinct, given today’s technology. But he admits that the biggest challenge is finding, naming and categorizing all the world’s plants. And someone has to gather these seeds before it’s too late. “There aren’t a lot of people out there doing this,” he says. “The key is to know the flora from a particular area, and that knowledge takes years to acquire.”

There are about 1,470 seedbanks scattered around the globe, with a combined total of 5.4 million samples, of which perhaps two million are distinct non-duplicates. Most preserve genetic material for agriculture use in order to ensure crop diversity; others aim to conserve wild species, although only 15 per cent of all banked plants are wild.

Many seed banks are themselves under threat due to a lack of funds. Last year, Imperial College, London, examined crop collections from 151 countries and found that while the number of plant samples had increased in two-thirds of the countries, budgets had been cut in a quarter and remained static in another 35 per cent. The UN’s Food and Agriculture Organization and the Consultative Group on International Agricultural Research has since set up the Global Conservation Trust, which aims to raise the \$260 million (£156 million) to protect seed banks in perpetuity.

For questions 41 – 46, decide whether each of the following statements is True (T), False (F) or Not Given (NG). Write T, F, or NG in the corresponding numbered boxes provided.

41. The reason to collect seeds is different from the past.
42. The Millennium Seed Bank is one of the earliest seed banks.
43. A major reason for plant species extinction is farmland expansion.
44. The method scientists use to store seeds is similar to that used by farmers.
45. Technological development is the only hope to save plant species.
46. The works of seed conservation are often limited by insufficient financial resources.

For questions 47 – 54, read the summary and fill in each space with NO MORE THAN THREE WORDS taken from the passage.

People collect seeds for different purposes: some collect to protect certain species from (47) _____; others collect seeds for their potential to produce (48) _____. They are called the seed hunters. The (49) _____ of them included both gardeners and botanists, such as (50) _____, who sponsored collectors out of his own pocket. The seeds collected are often stored in seed banks. The most famous among them is known as the Millennium Seed Bank, where seeds are all stored in the (51) _____ at low temperature.

Located in the UK and overseen by the Royal Botanic Gardens, this seed bank aims to safeguard the world’s most vulnerable species. Many of these seeds are from plants facing annihilation due to (52) _____, and their loss could mean the disappearance of unknown benefits to medicine, agriculture, and industry. Seed banking is now viewed as an (53) _____, offering long-term security for biodiversity. However, the process of finding, identifying, and categorizing plant species demands (54) _____, and financial limitations continue to threaten this critical global effort.

Answer keys:

41. TRUE	42. NOT	43. TRUE	44. TRUE	45. FALSE	46. TRUE
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	GIVEN				
47. extinction			48. drugs or crops		
49. pioneers			50. Sir Joseph Banks		
51. underground vaults			52. habitat destruction		
53. insurance policy			54. years to acquire		

4.2.3. Suggested prompts for reading part 3

After the article has been selected, it should be systematically divided into logical sections. From these, six paragraphs should be carefully removed, typically at intervals of every 150 to 180 words, to create meaningful gaps. Each removed paragraph must contain essential ideas, significant examples, or contrasting points that contribute to the coherence and development of the text.

The task should require students to demonstrate an understanding of logical sequencing, the use of cohesive devices, and reference tracking, including pronouns, synonyms, and lexical cohesion. In addition to the six missing paragraphs, seven paragraph options labeled A to G should be provided, with one serving as an extra option that does not logically fit anywhere in the passage. In constructing the task, it is crucial to ensure that it presents a substantial level of difficulty. The extra paragraph should be designed to appear contextually plausible while ultimately not aligning logically with any of the gaps. The cohesive links between the removed paragraphs and their surrounding text should be intentionally subtle, encouraging students to pay close attention to reference chains, logical progression, and argument development. Each paragraph option should contain clear referencing words such as “this,” “these,” “it,” or “such,” as well as discourse markers including “however,” “moreover,” “on the other hand,” and “as a result.” Lexical cohesion through the use of repetition, synonyms, and topic-specific vocabulary should also be a feature of each paragraph to challenge students’ ability to track thematic continuity across the text.

The task instructions must be presented clearly and concisely to guide students effectively. The recommended instruction is as follows: ***“You are going to read a passage from which six paragraphs have been removed. Choose from the paragraphs A–G the one that fits each gap. There is ONE extra paragraph that you do not need to use.”*** This format provides an appropriate level of complexity for gifted students and encourages the development of advanced reading strategies, including cohesion analysis, logical reasoning, and careful interpretation of textual relationships. As an optional extension to the task design, it is recommended to request that the AI provide brief explanations for why each paragraph correctly fits its respective gap. These explanations can offer valuable insights into the logical and cohesive connections between the missing paragraphs and the surrounding text, thereby supporting both the teacher's assessment process and the students' understanding of text cohesion. Additionally, it is beneficial to request a detailed distractor analysis for the extra paragraph. This analysis should clarify why the unused paragraph may initially appear plausible to students but ultimately does not fit logically within the passage. Such insights are essential for identifying common misconceptions and enhancing students' critical reading skills. Furthermore, teachers may request that the AI generate a list of key cohesive devices present in each paragraph. This list can serve as a useful reference to facilitate the grading

process and to support post-task discussions, enabling teachers to provide precise feedback on the students' ability to track cohesion and textual referencing throughout the exercise.

Suggested AI Prompt:

Based on the provided academic article, design a **gap-text exercise** in which **six paragraphs are removed**. Prepare **seven paragraph options (A – G)**, including one paragraph that is not needed. Ensure the exercise is challenging for grade 12 English majored students preparing for the national examination for gifted students. The task should test students' ability to track cohesion, logical flow, referencing, and discourse markers. The extra paragraph should be plausible but logically excluded. Provide the complete exercise and the answer key.

Sample 6: In the passage below, six paragraphs have been removed. For questions 55 – 60, read the passage and choose from paragraphs A – G the one which fits each gap. There is ONE extra paragraph which you do not need to use. Write the letters A – G in the corresponding numbered boxes provided.

A Short History of British TV Advertising

Television advertising in Britain began on 22 September, 1955 with the inaugural broadcast of ITV, the first commercial television channel. Up to this point, the only television channel was the BBC, which operated a strict policy of no advertising. Viewers seemed happy with this arrangement, and less than enthusiastic about the prospect of advertising on their screens. Most commentators gave the new ITV station little chance of success.

55.

The early commercials were rather different from those we are familiar with today. Most noticeable is that they were in black-and-white, but they were also much longer than today's adverts, and they were far more stilted. In effect, they were moving newspaper adverts. In part, this was a result of the lack of experience in television advertising in Britain. But, more importantly, it was because the television industry was concerned not to appear too American – the bogey of public service broadcasting.

56.

The morning after the first commercials appeared, Bernard Levin wrote in the *Manchester Guardian*: "I feel neither depraved nor uplifted by what I have seen ... certainly the advertising has been entirely innocuous. I have already forgotten the name of the toothpaste."

57.

Other formats followed, this time in the no-man's-land between advertisement and editorial. These were known as time spots and advertising magazines. In time spots, the advertiser booked the station clock and tied in his product with the time announcement. "Time to light a red-and-white" claimed one cigarette manufacturer. Other punctual advertisers were Ever-rite watches and Aspro. The Independent Television Authority (ITA) regarded the time spots as annoying and abolished them in December 1960.

58.

It first appeared in the spring of 1957. It relied on a believable story line, recognisable characters and the warm personality of the landlord. Products, from the familiar to the outlandish, were skillfully woven together each week. After the demise of the ad mag format, the same actors appeared running Jim's stores in a series of adverts for Daz, continuing the successful mix of popular proprietor and 'good' advice.

59.

The type of products advertised on television have changed over the years. In the 1950s advertising was dominated by the soap powder manufacturers and food advertising. In the 1960s there was little car advertising, due to an agreement between manufacturers. The car manufacturer Datsun arrived from Japan in the 1970s and broke the cosy agreement between the cartel not to advertise.

60.

In the 1980s advertising changed again. New outlets for the message arrived in the form of Channel 4 and Breakfast television, but there were also cultural changes brought about by Thatcherism. The possibility of advertising on the BBC replacing the licence fee was strongly suggested by the Adam Smith Institute. Their report went on to recommend that cigarette advertising, banned in 1965, should be reinstated. (The BBC still does not carry advertising, and the ban on tobacco advertising remains in place.)

Interactive adverts started to appear in the late 1980s. The first was an advert for Mazda cars. In this, viewers were instructed to video-record the ad and play it back frame by frame. On doing so they were able to take part in a competition to win a Mazda car. First Direct also ran interactive adverts, simultaneously on ITV and C4; by switching between the two channels, viewers could see either a positive or a negative outcome to the story. Neither of these examples were truly interactive, but they did force viewers to become more involved. Television advertising has come a long way since 1955. Many products have disappeared from the screens and been replaced by ones undreamt of forty years ago. But the great adverts live on in the viewer's memory.

Missing paragraphs:

- A. The '70s brought us new ads such as the Smash Martians and the Hamlet cigar adverts. Old favourites remained on the screen, often with a new twist to liven up a familiar product: thus the popular star of one series of ads, Katie, was sent to America with her family, letting her explain all about Oxo to her new American friends while giving an added gloss to a familiar product.
- B. The advertising magazine ran for a few more years until 1963 when it, too, met its end. Created to encourage small advertisers who could not afford their own ad slot, they had a loose story format and each episode featured a collection of products. The most famous was *Jim's Inn*, set in a hotel with Jimmy and Maggie Hanley as the owners.
- C. The first commercial was for Gibbs SR toothpaste. It featured a tube of toothpaste, a block of ice and a commentary about its "tingling fresh" qualities. Its style was jerky and uncertain. Typically of the early adverts, any single frame could be used with a written caption as a newspaper advert. The first Persil adverts were actually adapted from their familiar posters, with dancers and sailors in different shades of white and the announcer reassuring us that "Persil washes whiter. That means cleaner."
- D. ITV's detractors claimed it would be too American, the British public would not want their programmes interrupted by adverts and it would never be as good as the BBC. Bound up with the new challenge to the BBC was the issue of advertising. The British, it seemed,

felt that the proper place for advertisements was in newspapers. When it came to television, nobody could have predicted the relationship that the viewing public would later have with their favourite TV ads. But that was still a long way off.

- E. Until the 1970s, the advertisers' approach was very much to tell the viewer why they should use that product. The style changed in the 1970s, with viewers being invited to share in the lifestyles and values of the characters using the product on screen. Whether as a result of the introduction of colour spurring people on to new heights of creativity, or simply because viewers were now television-literate and demanded higher production values, adverts in the 1970s were noticeably different from what went before.
- F. This emphasis on money was to change the face of advertising completely. Soon, major corporations started to grow up around the new industry, and the type of programmes shown was dictated by large financial concerns. Gone were the days when the television-viewing public actually had a say in what they watched. From this point on, we would be subjected to sponsorship by all kinds of manufacturing and service industries. Nor were we likely to forget, with their constant reminders that "This programme is brought to you by Smiths – the tastiest crisps money can buy."
- G. Clearly, there was a need for more effective advertising, and the presenter commercial was a standard format which was arrived at very quickly. The presenter, often a personality with whom the viewers would be familiar from popular programmes or the theatre, would appear using the product and extolling its virtues, perhaps with the aid of a chart or 'scientific' demonstration. At the end, a sincere out-of-vision announcer would recap on why that presenter had chosen the product. It was a popular, easy-to-write format that could be produced with minimal sets and therefore was cheap to make. Even so, many of the early presenters seemed to confuse shouting with communicating.

Answer keys:

55. D	56. C	57. G	58. B	59. E	60. A
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4.2.4. Suggested prompts for reading part 4

In designing the multiple-choice questions, it is essential to develop a set of ten items, each providing four answer options. The questions must move beyond superficial factual recall and should require students to engage in higher-order thinking processes, including inference, synthesis, and evaluation. To maintain the necessary level of complexity, the wording of the questions should incorporate paraphrasing strategies that prevent students from simply scanning the text for exact matches.

The questions should systematically target various advanced reading skills, such as identifying the author's purpose, discerning attitude and tone, making logical inferences, recognizing cause-and-effect relationships, detecting implicit meanings, following cohesive devices and referencing chains, and distinguishing between main ideas and supporting details. It is critical that the distractors, or incorrect options, are carefully constructed to be conceptually similar to the correct answers, yet logically flawed. Effective distractors should reflect common student misinterpretations or errors that may arise from superficial or incomplete readings of the text. This design will ensure that students must thoroughly comprehend the passage to select the correct response. The questions must present a sufficient level of challenge to gifted learners and should require close reading and deep textual engagement.

The language used in the questions must reflect advanced phrasing and high-level academic vocabulary, aligning with the rigor expected in national examinations for gifted students. To

provide adequate variety and comprehensive skill assessment, the question set should include a balanced range of question types. This variety should encompass questions that assess global comprehension, such as identifying the main idea or author's stance; detailed comprehension, focusing on specific information; inference and implication, requiring students to read between the lines; vocabulary in context, which tests nuanced word understanding; reference tracking, especially involving pronouns and cohesive devices; and questions that probe the author's attitude, purpose, and tone. The deliberate inclusion of this range ensures that the task holistically evaluates the advanced reading competencies necessary for success in high-stakes assessments for gifted learners.

To further enhance the effectiveness of the AI-generated tasks, teachers may request the AI to provide detailed justifications for all correct answers. These justifications should clearly explain the logical reasoning and textual evidence that validate each correct response. Additionally, it is beneficial for the AI to offer explanations regarding the incorrect options, particularly focusing on why these distractors, although initially plausible, are ultimately incorrect. Such analysis is valuable in helping students understand common pitfalls and the reasoning errors that can arise from superficial reading or misinterpretation. Furthermore, teachers may also request that the AI highlight specific parts of the text that directly support the correct answers. This feature would assist both teachers and students in tracing the source of the answer within the passage, thereby reinforcing the connection between careful reading and accurate response selection. These enhancements contribute significantly to the instructional value of the exercise by promoting deeper comprehension and reflective learning.

Suggested AI Prompt:

Based on the provided article, create a **challenging multiple-choice reading comprehension exercise with 10 questions**. Each question should have four answer options. The questions must:

- Test advanced reading skills including inference, author's attitude, purpose, cause-effect, reference tracking, and vocabulary in context.
 - Use **sophisticated wording and paraphrased ideas** to prevent easy scanning.
 - Include plausible distractors that challenge grade 12 English majored students preparing for national gifted student exams.
- Please provide the passage, the 10 questions, the answer key, and a brief explanation of the correct answers.

Sample 8: For questions 61 – 70, read the following passage and write A, B, C, or D in the corresponding numbered boxes provided to indicate the correct answer which fits best according to what is stated or implied in the text.

Colouring People

Racial constructs are logically inept, yet they have prevailed in today's society, argues Eleanora Hill.

My house was a very popular place in my old neighbourhood. Kids used to hang out there. Kids of all descriptions liked the abundance of videogames and good snack food. There was a little girl, about five, who lived a few blocks away, and she was a lovely child. She had beautiful dark ebony skin, doe eyes, a sweet disposition and a mischievous smile. One day she commandeered me to colour in a colouring book with her. She was colouring in people, giving them names of people she knew. I pointed out that she had coloured in about every person we knew but not one representing herself. She said she wouldn't do that because she

was "black and ugly." She started to cry, and I told her she was very beautiful, that I didn't feel ugly, and I was black, too. She looked at me as if I was crazy and said, "but you're a light colour." I rightly felt obtuse and insensitive. **[A]** I persisted that she should see how beautiful she really was, and we talked and started to cheer up and laugh, but I know deep down the remnants of those feelings held onto her little heart. She was only five years old, but she already knew she couldn't (and shouldn't) identify with me. I can imagine that, over time, people will continue to tell her that she and mixed people are the same and she may grow to be either more self-loathing or to hate mixed people instead. Neither is a very healthy option. After being told all her life that she and people who are actually mixed-race are the same, genetically, she can't help growing up thinking there is something wrong with somebody.

This is not an exclusively black issue either. Misidentification abounds in our race-obsessed society. **[B]** Groups that have distinct phenotypic differences seek a single prized social classification, white. Some are phenotypic blends as well, in other words are very mixed. Some are not. Take the example of a dark-featured woman of North African extraction I used to know. In order to satisfy her Northern European classification, she dyed her black hair light blonde, leaving it the consistency of candy floss while trying various unnatural looking contact lens colours to lighten her eye colour. Christie Brinkley was her idol. The damage to her psyche was much deeper than the damage to her hair and always evident. Somewhere down the line society implied that she and Christie Brinkley are in the same ethnic (white) pool. So she tried to live up to it. Yes, I am aware there are people of North African heritage who have blonde hair and blue eyes. There are also Sub-Saharan Africans who are of Semitic blood. She was neither, and she was oblivious to other similarly endowed women who wore their dark good looks with style. Once, she even criticized my purchase of a dark featured doll for my niece because it had brown hair, brown eyes and olive skin. It floored her that I had not chosen a white, blonde doll. "Why would anyone not want a blonde doll?" She was bigoted against her own heredity.

People who perpetuate the idea that individuals are full members of ethnic groups they don't fit into are being, perhaps through unintentional thoughtlessness, cruel. They choose to ignore the damage their personal agendas can inflict upon the sense of self and family circumstances of others. While it is painfully obvious that such monocultural preaching purists have no respect for the turmoil of the multiracial individual, they also ignore the harm done to the identity of the single-race, or ethnic person. Advocates of the "one drop" theory (one drop of black, or Asian or whatever "blood" makes you only that) have only personal interest at heart in the imposition of false identities. We can divide these reasons into political and/or social ones. What it boils down to is that they are getting something from enforcing monocultural doctrine. These ideas have hurt more people than they have ever helped, and there are those who don't wish to see the world ever take steps to move beyond them. Their purposes are not served if the concept of race, which stands on dubious scientific footing at best, is eliminated. **[C]** Whether it's avoiding the disapproval of older family members who hold on to the "one drop" theory of racial identity due to past (bad) experience, getting a congressional district apportioned as you please, or gaining a social distinction from being the "lightest" people in the room, it is imposing lies, misery and a low self image on countless others.

[D] You don't have to be exactly the same as somebody else to love them. None of us is exactly the same as any other person, and most of us are blends of different ethnic groups, truth be told. Accepting this reality is the only way to prevent the imposition of the ideas of arbitrary, "desirable" racial characteristics upon even the youngest children. Categorizing people into hypothetical races and then trying to squeeze people who are products of the intermingling of two or more of these bogus identifiers into the moulds, underscores the weirdness of the whole idea of racial constructs. Perhaps, worst of all, it instils a sense of "I

SHOULD look a certain way" in children, and then it makes it worse by including people in the child's racial grouping who have only some (or even none) of the external characteristics of that grouping. It makes beautiful children believe they should be something they can never be, because other people in their race are those things. If we can't understand this and understand each other, we, as a society, have no future worth aspiring to.

61. *By narrating the incident with the little girl, the writer shows*

- A. that racial constructs are harmful mostly to children.
- B. how racial constructs can damage a child's self-esteem.
- C. that children are unable to understand racial constructs.
- D. the way in which racial constructs work.

62. *Why did the writer feel "**obtuse and insensitive**" in the first paragraph?*

- A. She had failed to perceive that the child was anxious.
- B. She had misunderstood the child's concern.
- C. She had assumed the child was racially aware.
- D. She had denied the child the chance to explain.

63. *In the second paragraph the author implies that*

- A. all people of mixed race want to be white.
- B. all people of African origin change their appearance.
- C. appearance can vary irrespective of racial origin.
- D. many whites have problems with the way they look.

64. *The woman the writer discussed in the second paragraph*

- A. modelled herself on a person from a different ethnic pool.
- B. was anxious to make herself look like the writer.
- C. would not normally be classified as "European".
- D. tried to add style to her dark good looks.

65. *The writer believes that arbitrary racial classification*

- A. is always deliberately hurtful.
- B. is made out of respect for others.
- C. causes harm to all those affected.
- D. is the result of malicious action.

66. *In the third paragraph the author states that monoracialism*

- A. is a thing of the past.
- B. continues because of vested interest.
- C. is caused by low self-esteem.
- D. only survives through fear of criticism.

67. *The author feels that the idea of separate racial groups*

- A. is sometimes socially desirable.
- B. is without foundation in reality.
- C. happens naturally to all societies.
- D. affects adults more than children.

68. What can be inferred from the fourth paragraph?

- A. Societal expectations tied to race impose unattainable identity standards that undermine children's self-perception and their psychological sense of inclusion.
- B. Individuals belonging to the same racial group typically exhibit similar phenotypic traits and uphold a shared set of cultural norms and values.
- C. Grouping children based on shared racial characteristics can significantly enhance their development of a cohesive and resilient cultural identity, fostering a deeper sense of belonging and self-awareness.
- D. Society ought to uphold distinct racial classifications as a means of fostering children's pride in their physical attributes.

69. With which of the following does the writer mostly agree?

- A. Racial categories are useful social tools if applied consistently.
- B. Children should be taught to take pride in being part of a clearly defined racial group.
- C. Society's obsession with race causes long-term harm to individuals' self-worth and identity.
- D. Multiracial individuals suffer less from racial pressure than those of single-race backgrounds.

70. Which of the following square brackets [A], [B], [C], or [D] best indicates where in the passage the sentence ***"Clinging to these outmoded racial distinctions maintains the evil associated with their imposition."*** can be inserted?

- A. [A] B. [B] C. [C] D. [D]

Answer keys:

61. B	62. B	63. C	64. A	65. C	66. B	67. B	68. A	69. C	70. C
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4.2.5. Suggested prompts for reading part 5

In selecting the source material for the section-matching task, it is essential to utilize an authentic, academically rigorous article of approximately 1000 words. The article should be divided into five clearly defined sections, labeled A through E. The chosen topic must be intellectually stimulating and appropriate for the academic demands of national examinations designed for gifted students. Suitable subject areas may include social issues, scientific innovations, global environmental challenges, educational reforms, or complex cultural topics. The text must align with the C1 to C2 proficiency levels of the Common European Framework of Reference for Languages (CEFR), demonstrating complex sentence structures, an academic or semi-formal register, abstract reasoning, multi-layered arguments, and the presence of implicit information that requires higher-order reading comprehension skills.

The task should be carefully constructed as a section-matching exercise. The instructions provided to students must clearly state: ***"Read the following passage and choose from the sections (A–E). The sections may be selected more than once."*** The question design must include ten items that draw upon specific details from the text, including examples, statistical evidence, contrasting viewpoints, or the author's perspective. Each question should be written using paraphrased language rather than replicating expressions from the original text. This ensures that students cannot rely on simple scanning techniques but must instead apply advanced reading skills such as inferencing, paraphrase recognition, and reference tracking to

determine the correct answers. Some questions should deliberately have answers that are located within the same section, while others should draw from content that is dispersed across different sections, thereby increasing the cognitive complexity of the task.

The question requirements must comprehensively assess a range of essential academic reading skills. These include the ability to grasp both global and local comprehension, to accurately match paraphrased information to the corresponding section, and to understand the progression of arguments throughout the passage. In addition, students should demonstrate the ability to identify examples, explanations, comparisons, and contrasts within the text. The task must also assess students' proficiency in distinguishing between supporting details and main ideas and in tracking cohesive devices and referential elements such as pronouns and synonym chains that link ideas across sections.

To maintain an appropriate level of difficulty for gifted students, the questions must incorporate high-level vocabulary and be phrased with syntactic and lexical complexity. It is also essential to include distractor sections that, while thematically similar, do not provide the specific information required to answer the question correctly. These carefully constructed distractors will challenge students to engage deeply with the text, avoiding surface-level comprehension and reinforcing the need for precise, analytical reading.

As an optional enhancement to the task design, it is recommended that the AI be instructed to provide comprehensive explanations for each correct answer. These explanations should clarify the reasoning behind the correct selections, illustrating the logical connections and textual evidence that support each response. Additionally, it is beneficial to request that the AI offer a detailed distractor analysis, specifically addressing why alternative sections may initially appear plausible but are ultimately incorrect. This analysis should explore the ways in which distractor sections might superficially align with the question but fail to satisfy its specific requirements upon closer examination. Furthermore, it is advantageous to request that the AI highlight key cohesive devices and instances of paraphrasing within the sections. Identifying these linguistic features would assist both teachers and students in understanding how coherence, referencing, and lexical variation are used throughout the text, thereby enhancing the educational value of the task and supporting more effective reading comprehension instruction.

Suggested AI Prompt:

Based on the provided article divided into five sections (A–E), create a **challenging section-matching reading comprehension exercise with 10 questions**.

- Each question should ask: In which section are the following mentioned?
- The questions must use **paraphrased, complex wording** and should require students to understand nuance, reference, and argument structure.
- Each section can be used more than once.
- The exercise should be suitable for grade English-majored students preparing for national gifted student exams.
- Provide the full exercise and an answer key.

Sample 9: Read the following passage and choose from the sections (A – E). The sections may be selected more than once. Write the letter A, B, C, D, or E in the corresponding numbered boxes provided.

THE UNUSUAL BEHAVIOUR OF THE BOWERBIRD

A. Attracting a mate is one of the fundamental undertakings of life in the animal kingdom, and many creatures go to extreme lengths or exhibit unusual techniques for this very purpose. Take, for example, the common mouse that attracts females by its unique high-pitched songs, or the female flamingo that adds colour to its feathers in order to appeal to the male of the species. Indeed, there is certainly no shortage of weird and wonderful courting rituals in the animal world, but very few of these are more unusual and impressive than those of some species of the bowerbird, who can master DaVinci-like feats of design and knowledge in order to win over its female equivalent. Commonly found in Papua New Guinea and Australia, there are around ninety different species of this bird, and their range is impressive in both size and colour. As such they exhibit a range of efforts and behaviours in order to succeed in finding a mate.

B. Naturally, many types of bowerbird behave in ways common to other species of birds by using physical signs and movements in order to attract others. One such example of this is how, when a female arrives, the male's pupils enlarge and he emits a distinctive call from his throat as a way of indicating his interest in the female. The male, if lucky enough that the female hasn't already departed unimpressed by his intentions, then begins a series of unusual jerking movements with its wings to keep her attention, a display that has been likened to kinds of traditional human dancing such as the Paso Doble. This display can, with some bowerbirds, culminate in perhaps one of the stranger mating techniques in which the male sometimes begins to headbutt the female's chest, certainly not the kind of behaviour you'd expect from an everyday courtship! This is not just an intricate show, but also a well-rehearsed one in which the male frequently changes and adjusts their signs and movements depending on his success rate in attracting a female.

C. As if this wasn't enough, some types of bowerbirds really go the extra mile to find their other halves, engaging in elaborate construction work that takes a considerable amount of forward planning and hard work. Many male bowerbirds erect intricately decorated nests, known as bowers, in a variety of elaborate ways, even stealing from other males' bowers in order to have the most impressive home and be chosen as a mate. These often extremely complex bowers can be built in a tent shape, with the males placing sticks around a small tree, or what could best be described as an igloo shape, with a passageway entrance into a central space full of ornaments. Whatever the type of bower, they all comprise a form of visual enhancement little seen in the animal world and more akin to our own forms of home decoration, albeit in a simpler form.

D. Think, if you will, of a market stall trader who has all his wares on display in an enticing fashion, showing off individual items to potential buyers in the hope of a purchase. The bowerbird's behaviour is reminiscent of this, with their bowers including hundreds of tiny, often colourful objects both natural and manmade, such as flowers, berries, coins and glass. Each of these small pieces is exactly arranged so as to appeal to females. While the bower's inside is intricately decorated, the male also shows larger objects to the female to catch their attention. And this might occur more than once, as the females go back and forth watching the males' displays and visiting different bowers until they choose the bower that has caught their eye sufficiently to select the male owner as their mate. Females commonly stop at a variety of bowers in order to select their preferred candidate, and some males may be chosen by multiple mates, while others are passed by altogether.

E. Recent investigations into bowerbirds and their bowers have identified that the birds create a pattern of decoration so detailed and clever that they make their bowers appear much bigger than what they actually are when viewed by the female. In fact, the male bowerbird tends to go back and forth into their bowers so they can ensure they've achieved the desired effect, and which they are meticulous about. Recent research shows that if a male's bower is altered in any way, they will painstakingly restore it to their original design. In addition to this, incredibly, their chances of mating are found to be directly related to the regularity of the patterns they create within the bowers. The complexity of this mating behaviour, from both the male and female perspectives, indicates that the bowerbird is a behaviourally complex family of birds, possibly more so than any other bird alive today, and almost certainly the next best home architects after humans.

In which section are the following mentioned?

71. The types of structural layout that bowerbirds use for their homes.
72. How optical illusions play a part in helping the bowerbird attract a mate.
73. The way in which female bowerbirds are impatient when it comes to mate selection.
74. The way in which bowerbirds can be underhanded in obtaining their materials.
75. A physically aggressive mating technique used by the bowerbird.
76. The trial and error involved in making a bower visually attractive.
77. The procedure undertaken by females in mate selection.
78. The fundamental quality that makes a bower a success.
79. How the male bowerbird is almost unequalled in its mating efforts.
80. The transactional nature of the mating behaviour of the male bowerbird.

Answer keys:

71. C	72. E	73. B	74. C	75. B	76. E	77. D	78. E	79. A	80. D
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5. Students' Performance and Feedback

This section presents the findings of the pilot study conducted to examine the effectiveness of using AI applications in designing reading and listening tasks for gifted students. The study particularly focused on students' engagement, task efficiency, satisfaction with learning materials, and teachers' evaluation of students' skill development.

5.1. Students' feedback on AI-generated tasks

The responses collected from the 56 gifted 10th-grade students demonstrated substantial improvements in several key areas when AI-generated reading and listening tasks were introduced. The students provided feedback through structured questionnaires and follow-up interviews.

5.1.1. Increased engagement

One of the most significant findings was the 40% increase in student engagement when using AI-generated listening tasks compared to traditional teacher-designed exercises. Students reported that the AI-generated materials were more authentic, diverse, and closely aligned with their interests and proficiency levels. They appreciated the inclusion of real-life audio clips, podcasts, and interactive comprehension activities which stimulated their curiosity and sustained attention throughout the tasks.

The engagement levels were measured by tracking the frequency of voluntary task participation, time on task, and student-reported interest. Table 1 summarizes the comparison between traditional and AI-assisted task engagement.

As reflected in Table 1, all indicators pointed to a substantial improvement in students' willingness to engage with the AI-generated materials.

Table 1: Student Engagement Levels Before and After AI Integration

Measurement criteria	Traditional tasks	AI-Generated tasks	Percentage increase
Voluntary participation rate	45%	63%	+40%
Average time on task (minutes)	22	31	+41%
Self-reported interest (Scale 1-5)	3.2	4.5	+40.6%

5.1.2. Improved task efficiency

The introduction of AI-tailored tasks also contributed to a 25% reduction in task completion time. The content generated by AI was better customized to students' cognitive levels and learning pace, which enabled them to process information more quickly without sacrificing comprehension accuracy.

Students reported that the tasks provided by AI applications were more focused, less redundant, and contained clearer instructions, which collectively reduced unnecessary processing time.

5.1.3. Students' satisfaction

Students also expressed higher satisfaction levels with the AI-generated materials, especially those integrated with multimedia elements and interactive features. The majority of participants emphasized that the use of authentic language sources and current topics made the exercises more meaningful and enjoyable.

Qualitative feedback collected from post-task interviews indicated that students valued the authenticity and relevance of the AI-generated tasks, which they felt closely simulated real-world listening and reading situations. This engagement with authentic materials appeared to contribute to increased intrinsic motivation.

The summary of students' perceptions is presented in Table 2.

These results suggest that AI-based task design successfully addressed the gap between traditional textbook-based exercises and students' real-world language learning needs.

Table 2: Student Satisfaction with AI-generated Tasks (Self-Reported Ratings)

Criteria	Traditional Tasks	AI-Generated Tasks
Relevance to Interests	3.1 / 5	4.6 / 5
Material Authenticity	2.8 / 5	4.7 / 5
Perceived Difficulty Level	3.5 / 5	3.8 / 5
Overall Satisfaction	3.0 / 5	4.5 / 5

5.2. Teachers' evaluation of the AI-assisted innovation

Teachers involved in the pilot trial provided positive evaluations of the AI-based approach, particularly in terms of its capacity to promote higher-order thinking skills.

5.2.1. Improvement in critical reasoning

Teachers observed marked improvements in students' critical reasoning abilities, especially in tasks requiring inference, synthesis, and evaluation. When exposed to AI-generated multiple-choice questions (MCQs) in reading exercises, students demonstrated an enhanced ability to distinguish between subtly different answer choices, often involving paraphrased or implied content.

Additionally, teachers reported that the AI tasks frequently incorporated distractors that required careful analysis, which pushed students to apply critical reading strategies rather than relying on superficial keyword matching.

5.2.2. Development in paraphrase recognition

One of the most notable gains reported by teachers was the progress in students' ability to recognize paraphrases. Listening tasks generated by AI tools often involved paraphrased versions of questions or answer options, which encouraged students to listen for meaning rather than exact wording. This exposure helped develop essential skills for high-stakes English proficiency examinations where paraphrase recognition is critical.

Teachers specifically noted that the listening tasks designed with AI support:

- Required deeper processing.
- Provided exposure to varied accents and speech speeds.
- Integrated complex question phrasings that mirrored exam-like challenges.

Table 3 summarizes the key areas of improvement as evaluated by teachers.

Table 3: Teachers' observations of student skill development

Skill area	Traditional tasks	AI-generated tasks
Critical reasoning	Moderate	Strong
Paraphrase recognition	Limited	Significant
Engagement with complex texts	Moderate	High
Accuracy in MCQ Tasks	68%	85%

Teachers generally viewed the AI-supported approach as a meaningful innovation that aligned with the goals of gifted education: to challenge high-performing students and foster independent, critical engagement with complex language materials.

5.3. Overall perception of the innovation

Both student and teacher feedback indicate that the AI-assisted task design was effective in enhancing learning outcomes. Students not only completed tasks more efficiently but also engaged more deeply with the content. Teachers highlighted the pedagogical advantages of using AI tools to:

- Customize materials to students' proficiency levels.
- Provide authentic, exam-relevant tasks.
- Improve cognitive engagement and analytical reading/listening skills.

However, some teachers also noted that careful teacher supervision is still necessary to ensure that the AI-generated materials are appropriately challenging and linguistically accurate. AI-generated exercises, while valuable, require teacher vetting to avoid occasional mismatches in difficulty or content.

5.4. Summary of key findings

- Student engagement increased by 40% with AI-generated listening tasks.
- Task completion time decreased by 25%.
- Student satisfaction with content authenticity and relevance significantly improved.
- Teachers observed notable gains in critical reasoning and paraphrase recognition.

These findings strongly suggest that integrating AI applications into task design can be a powerful strategy to support gifted students' language development and exam preparation. However, the effective implementation of AI tools must be coupled with teacher oversight and task customization to fully leverage their educational potential.

Part D. CONCLUSION

This study highlights the significant role that Artificial Intelligence (AI) applications can play in designing effective reading and listening tasks for gifted students preparing for national English examinations. AI has proven to be a valuable educational tool, particularly in catering to the advanced cognitive and linguistic needs of gifted learners. By offering personalized, adaptive, and authentic content, AI enables teachers to move beyond traditional, one-size-fits-all instruction and create materials that are intellectually challenging, engaging, and aligned with exam standards.

One of the most notable findings was the increased student engagement and efficiency when using AI-generated tasks. Students showed a 40% rise in engagement and a 25% reduction in task completion time, largely due to the relevance, clarity, and authenticity of the materials. They responded positively to real-world content, interactive formats, and multimedia elements that stimulated curiosity and sustained attention. Teachers also reported improvements in critical reasoning, inference-making, and paraphrase recognition—skills that are crucial for success in high-stakes assessments. These gains suggest that AI has the potential to significantly enrich language learning experiences for gifted students.

However, the effectiveness of AI tools is heavily dependent on the quality of prompts used to generate content. Carefully crafted prompts guide AI to produce tasks that are not only

linguistically accurate but also appropriately challenging and tailored to specific skill targets. For example, prompts that specify task type, difficulty level, vocabulary focus, or inference requirements result in more useful and targeted materials. As such, prompt design becomes a key competency for educators seeking to use AI effectively. Teachers must learn how to frame questions and task instructions in ways that leverage AI's full capabilities while aligning with their students' needs and learning objectives.

While AI cannot replace the professional judgment and expertise of teachers, it can significantly enhance instructional design when used thoughtfully. The study reinforces the importance of teacher involvement in reviewing, refining, and adapting AI-generated tasks to ensure they meet high pedagogical standards. With proper guidance and well-designed prompts, AI offers a powerful means of differentiation and innovation in gifted education.

In summary, integrating AI tools into task design—supported by effective prompt use and teacher oversight—can elevate the quality of instruction, promote deeper learning, and better prepare gifted students for the linguistic and cognitive demands of national examination

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APPENDICES

Appendix 1:

Audio file:

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SCRIPT:

Gordon: Martha, you know the family who live opposite me — the Guthries?

Martha: You mean the one with the twin daughters?

Gordon: Yeah. Well, **I found out something really surprising today. They're taking their children out of the state school and educating them at home.**

Martha: Sorry, Gordon — you mean just the two girls on their own?

Gordon: No, they're getting together with three other families here in Oxford and setting up a small school for all the children. It'll be on the top floor of one of the family's houses — at least until they can find a more suitable building. **Two of the parents will teach part-time, and they've hired a professional teacher to help as well. I think that's a really exciting step.**

Martha: I suppose it is, in a way. But there are so many considerations. It's a heavy responsibility on top of normal life. If I were them, I'd be concerned about the children missing out on contact with their peers.

Gordon: Hmm. Well, the friends I made at school were certainly the best bit. But looking at some of the bigger schools we've got now — some kids don't thrive, do they? They feel vulnerable, get picked on, or get into trouble. As a parent, I can see why you'd want, you know, to give your kids a secure learning environment to learn in.

Martha: **There is a theory that you should face up to your problems — that's how you learn and become stronger. Survival of the fittest.**

Gordon: The law of the jungle idea? But think about the kids who are turned off by a negative experience of learning. **What does that lead to? Disaffection, then delinquency, and eventually young adults who don't fit into society.** And it seems we don't want that element on our streets, do we?

Martha: **It's certainly becoming a serious issue in some places.** But let's get back to what you were saying about these home schools.

Gordon: Yes. Actually, I'm not sure about the practicalities. It seems unlikely that one could cover the breadth of learning that children can get in a large secondary school.

Martha: I've heard of small home schools that take full advantage of the local community. There's one where my sister lives — they run environmental research projects, go into companies, and so on. So there's quite a span of learning opportunities for the kids. **But it seems clear to me, as someone not involved in education, that taking advantage of a range of options is far easier with small groups.**

Gordon: **That goes without saying.** But do we really have to stick with our enormous, unwieldy state schools — the ones with thousands of children? I remember seeing an article about an experiment somewhere in the States. Huge schools were divided into small,

autonomous units — with better security, smaller class sizes, and a closer relationship with teachers.

Martha: Nice idea. But how are they going to pay for it?

Gordon: That part of the article wasn't very clear about.

Martha: Typical!

Gordon: I think they were going to introduce some kind of flatter management structure — or some other useless piece of jargon. And come to think of it, we know what that means — **lots of extra hassle and work for the staff, but no real benefits. In other words, change for change's sake.**

Martha: You're getting cynical in your old age! If we listened to people like you, we'd still be in the dark ages with no education at all! But, anyway, how are the Guthries getting on with their home school?

Gordon: Well, it's a bit early to tell. They've only just started.

Appendix 2:

Audio file:

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SCRIPT

ARI SHAPIRO, HOST: It's Labor Day, so we're looking at jobs on this week's All Tech Considered.

(SOUNDBITE OF MUSIC)

SHAPIRO: Today we're kicking off a new series that looks at how advances in artificial intelligence are changing our work. It's called Is My Job Safe? We'll look at specific industries where jobs might be disappearing or changing. To begin, we're going to look at which parts of the workforce might be relatively safe from the robots. We're joined by Erik Brynjolfsson. He directs the MIT Initiative on the Digital Economy. Welcome to the program.

ERIK BRYNJOLFSSON: Good to be here.

SHAPIRO: Back in 2004, Researchers at MIT and Harvard published a list of professions that they felt were most and least likely to undergo automation. **And one example they gave of a job that could not possibly be automated in the future was truck driving.**
BRYNJOLFSSON: Yeah.

SHAPIRO: **And today automated vehicles are being tested on the roads. Already the job of truck driving could be completely automated.** So your job is to try to predict which jobs will be automated in the future. But I wonder, are humans really able to make these kinds of predictions? The evidence seems to be that we're not very good at it. BRYNJOLFSSON: It's definitely not easy. There's constantly new innovations coming along, as there should be. And so we have to update our insights from time to time. SHAPIRO: Well, with that as a caveat, how much of the U.S. workforce would you say is at risk of automation in the coming decades? Are we talking about, like, 10 percent, 50 percent, 80 percent?

BRYNJOLFSSON: Well, I've got to give you some perspective. There's constantly automation of huge chunks of the workforce. And there's new jobs being created and old jobs being automated. And that's going to happen in the next 10 years. I wouldn't be surprised if 50

percent or more of the existing jobs had to change drastically or were eliminated. And hopefully another 50 percent of new jobs will be created at the same time. SHAPIRO: What do you see as the sector of the workforce that is least likely to change or least likely to disappear?

BRYNJOLFSSON: Well, there are three big categories that machines are really bad at. They've made tremendous advances, but they're bad at first off doing **creative work**. Whether you're an entrepreneur or a scientist or a novelist, I think you're **in pretty good shape doing that long-range creativity**. The second big category is **interpersonal skills and emotional intelligence, people who are coaches or salespeople or negotiators or caregivers**. And the third one is actually manual dexterity and physical mobility. Machines have a hard time doing simple things like picking up a nickel or walking up stairs or clearing a table. And so jobs that depend on that will also be safe for a while. And I think the right way to think about it is not so much looking at jobs, but looking at tasks 'cause almost every job has parts of them that are in one of those three categories, or maybe all three, and other parts that will be affected or even automated.

SHAPIRO: It's interesting 'cause when I think about how that translates to education, there's been such an emphasis on science and technology education. But it sounds like you're saying one of the sectors that's likely to be **safest is sort of creative work** that would suggest liberal arts education.

BRYNJOLFSSON: Absolutely. In fact, I think **there's probably no better time in history to be somebody with some real creative insights. And then the technology helps you leverage that to millions or billions of people. And people who can combine some creativity with an understanding of the digital world are especially well-positioned.**

SHAPIRO: Would you say that blue-collar workers are generally more likely to be replaced by robots than white-collar workers? We hear so much about people in manufacturing being replaced by automation.

BRYNJOLFSSON: Well, the truth is **most blue-collar work has already been automated.**

I mean, there's - less than 10 percent of Americans now work in the manufacturing sector. I don't think it's so much of a blue collar-white collar division. The big waves have been more structured work versus less structured work, with **more structured work being automated faster** and work that involves creativity and interpersonal skills as being more robust in the long run.

SHAPIRO: If **people are at the midpoint in their career** right now and they want to prepare themselves for the oncoming robot invasion (laughter), what can they do to make it less likely that they will ultimately someday be replaced?

BRYNJOLFSSON: Well, **I don't think as a society we're investing enough in education and training and thinking about how to handle this transition. More people should be thinking about the ways we're talking about it right now.**

SHAPIRO: Erik Brynjolfsson directs the Initiative on the Digital Economy at MIT, and his latest book is called "Machine, Platform, Crowd." Thanks a lot.

BRYNJOLFSSON: My pleasure.

Appendix 3:

Audio file:

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SCRIPT:

Interviewer: Hello listeners and welcome to the programme. Later we'll be speaking to community leader Jaqueline Epping about efforts to incorporate the wide diversity of residents in her area, but up first we have psychologist Colin Fraser who is going to give us an insight into why this incorporation is both necessary and beneficial. Welcome Colin.

Colin: Thank you, I'm happy to be here.

Interviewer: Now Colin, you're a bit of a mixed bag aren't you? **You were born in Canada, grew up in Scotland and now you reside in the States.** So, if we're talking about cultural identity, what identity do you relate to?

Colin: **I've also lived in England and France, and you're right that I wasn't born in Scotland but my parents and my siblings were. In fact, my heritage goes back a number of years in that country, so, even though I'm not Scottish by birth, I would have to say that I identify predominantly with the Scottish culture.** Having said that though, I think I've managed to incorporate aspects of each of the cultures I've been exposed to.

Interviewer: So what makes you predominantly Scottish?

Colin: Ooh, that's not an easy question to answer. There are so many facets that make up a person's identity that I don't think there's one physical factor that I could point to and it's difficult to categorise culture. Some might say it's determined by birth, but I think that's too simplistic. There's more to it than that but without going to particulars, **I would have to say I just feel Scottish. And that, to me, is what's important. I feel a sense of belonging, even when I'm not there.** I went to a highland games recently, in America. You know, the outdoor event with lots of kilts and caber tossing. It was great. Watching all the athletic events and dancing was an amazing sensation. **Even though it was a long way from Scotland, while I was there I just felt at home.** As soon as the mass pipe band started playing I was transported to what I consider my homeland. And that's key. Home is where the heart is as they say.

Interviewer: But how can a highland games in America make you feel at home if home is thousands of miles away?

Colin: Because it's not about the country, it's the culture. Some of the biggest games are in Canada and America and they're a testimony to the importance of cultural identity. **They were born of the people who emigrated from Scotland to those countries, people who kept their cultural roots alive and passed them down through the generations.** The strength of their ties stayed with them even as they were absorbed into another culture. Some people might suggest that clinging to a bygone practice of cultural heritage is obsolete in today's global society but **I think it is now in particular, with the interconnectedness of society, that the importance of knowing who you are and where you come from becomes paramount.** There must be a way of discerning oneself from the masses.

Interviewer: But wouldn't that alienate a person from the culture they reside in?

Colin: On the contrary. **In the global community, culture has to be accommodating.** If it excludes newcomers they separate themselves from the indigenous population and that's when you get fractures in society, splinter groups of isolated people which can lead to conflict. In order to avoid this, **both the interloping and the native culture have to accept each other. There's give and take as with any symbiotic relationship.** But that doesn't mean abandoning your roots. It's not just about how you see yourself but how the rest of the world views your culture. If your culture translates well, you're in luck. You can go anywhere just being yourself and when you know yourself, the ability to accept others for who they are becomes much simpler. You can appreciate their idiosyncrasies with greater ease.

Appendix 4:

Audio file:

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TRANSCRIPT

Imagine opening a bag of chips only to find Santa Claus looking back at you. Or turning the corner to see a smile as wide as a building. Humans see faces in all kinds of mundane objects, but these faces aren't real- they're illusions due to a phenomenon called face pareidolia. So why exactly does this happen, and how far can this (16) **DISTORTION OF REALITY** go?

Humans are social animals, and reading faces is an important part of our ability to understand each other. Even a glimpse of someone's face can help you determine if you've met them before, what mood they're in, and if they're paying attention to you. We even use facial features to (17) **MAKE SNAP-JUDGEMENTS** about a person's potential trustworthiness or aggression.

To capture all this vital information, humans have evolved to be very sensitive to face-like structures. Whenever we see something, our brain immediately starts working to identify the (18) **NEW VISUAL STIMULI** based on our expectations and prior knowledge. And since faces are so important, humans have evolved several regions of the brain that enable us to identify them faster than other visual stimuli. Whereas recognizing most objects takes our brain around a quarter of a second, we can detect a face in just a tenth of a second. It makes sense that we'd prioritize identifying faces over everything else.

But brain imaging studies have revealed that regions may actually be too sensitive, leading them to find faces where they don't exist. In one study, participants reported seeing illusory faces in over 35% of (19) **PURE-NOISE IMAGES** shown to them, despite the fact that nothing was there. It might seem concerning that our brains can be so wrong so often, but these illusory faces may be a byproduct of something (20) **EVOLUTIONARILY ADVANTAGEOUS**. Since processing all the visual input we encounter quickly and correctly is an enormous computational effort for the brain, this kind of hypersensitivity might act as a useful shortcut. After all, seeing illusory faces is usually harmless, while missing a real face can lead to serious issues. But for (21) **HYPERSENSITIVITY** to be more helpful than harmful, our brains also need to be quick at determining when a face is real and when it isn't.

So how fast can our brains tell when they've been duped? To answer this question, researchers used a form of (22) **BRAIN IMAGING** known as magnetoencephalography. By measuring the magnetic fields caused by electric currents in the brain, this technique allows us to track changes in brain activity at the scale of milliseconds. With this tool, researchers revealed that the brain generally recognizes a face as illusory within a quarter of a second - around the same time that we can identify most non-face visual stimuli.

However, even after our brain knows that the face is fake, we can still see it in the object. And by (23) **MESSING WITH** these brain areas, we can further impact our ability to differentiate between fact from fiction.

In one study, researchers stimulated a participant's (24) **FUSIFORM FACE AREA** while they were looking at a non-face object. As a result, the participant reported momentarily seeing facial features despite the object remaining unchanged. And while looking at a real

face, stimulation of this same area created perceived distortions of the eye and nose. These studies suggest that certain features are crucial to face detection. Just three dots can be enough to represent eyes and a mouth. People will even assign gender, age and emotion to illusory faces. It's unclear whether a person's culture or individual history impacts these perceptions, but we do know that pareidolia isn't unique to the human experience. Rhesus macaque monkeys show eye movements similar to our own when observing pareidolia-inducing objects and real faces, suggesting that this phenomenon is baked deep into our (25) **SOCIAL PRIMATE BRAINS**. So, next time you see an unexpected face in a coffee, car or cabinet, remember that it's just your brain working overtime not to miss the faces that really matter.

Appendix 5: Questionnaire

Questionnaire: Student Satisfaction with AI-Assisted Materials for Gifted Student Examination Preparation

Instructions:

For each statement below, please indicate your level of agreement by selecting a number from **1 (Strongly Disagree)** to **5 (Strongly Agree)**.

You will be asked to rate both **Traditional Tasks** and **AI-Generated Tasks** for each aspect.

Section 1: Relevance to Interests

1. The **Traditional Tasks** provided materials that matched my personal interests.
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
2. The **AI-Generated Tasks** provided materials that matched my personal interests.
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

Section 2: Material Authenticity

3. The **Traditional Tasks** included listening and reading materials that reflected real-world English usage.
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
4. The **AI-Generated Tasks** included listening and reading materials that reflected real-world English usage.
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

Section 3: Perceived Difficulty Level

5. The **Traditional Tasks** were appropriately challenging for my English proficiency level.
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
6. The **AI-Generated Tasks** were appropriately challenging for my English proficiency level.
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

Section 4: Overall Satisfaction

7. Overall, I was satisfied with the **Traditional Tasks** in helping me prepare for the gifted student examination.

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

8. Overall, I was satisfied with the **AI-Generated Tasks** in helping me prepare for the gifted student examination.

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5