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| Listening  Speaking Xx Reading  Grammar  Writing | | | |
| **Topic: Artificial Intelligence** | | | |
| Instructor:  Andrew | **Students Competency Level:**  Upper Intermediate | **Number of Students:**  12 | **Lesson Length:**  **50 minutes** |
| Materials: **(List the Names of all materials used in the lesson. Materials must be shown at the end of this document)**  “Microsoft’s Chat Bot Tay” Worksheet (Sample Demonstration)  “Boston Dynamic’s Robots” Worksheet  “Turing Test” Worksheet  “Google’s AlphaGo” Worksheet  “Stephen Hawking’s Warning” Worksheet | | | |
| Aims: **(What students will be able to achieve by participating in the activities of the lesson. (Ss gain or get by doing…)**  - Improve Ss listening skills by listening to T introduction, questions and ICQ-CCQs and listening to other Ss opinions and answers and group discussion.  - Improve Ss speaking skills by allowing them to respond to the articles and discuss about it within the group.  - Improve Ss writing skills by sharing their opinions in written form based on what we have learned.  - Improve Ss reading skills by reading the board and work sheets. | | | |
| Language Skills: **(Lists what activities language skills students will be using by participating in the activities of the lesson.)**   * Reading: **(Where did reading occur in the lesson?)**   Reading materials in the worksheets   * Listening: **(Where did listening occur in the lesson?)**   T instruction and explanation. Other Ss speaking and discussing   * Speaking: **(Where did speaking occur in the lesson?)**   Ss will share their opinions and their summary of the article. Group disccusion   * Writing: **(Where did writing occur in the lesson?)**   Writing the summary of the article. Answering questions. | | | |
| Language Systems: **(Lists what language systems students will be using by participating in the activities of the lesson.)**   * Phonology: **(sound)**   Discussios, Ss talk, T talk.   * Function: **(situation)**   Knowledge about Artificial Intelligence.   * Lexis: **(meaning)**   Vocabulary.   * Grammar: **(language structure)**   Article in worksheets   * Discourse: **(communication)**   Discussions and intructions | | | |
| Assumptions: **(What students must already be able to do and what concepts must already be mastered before the lesson in order to achieve the aims of the lesson.)**  All Ss have heard about artificial intelligence.  All Ss are open to share their opinions during discussions.  All Ss will take interest in reading the articles.  All Ss have English fluency of Upper Intermediate to understand the articles. | | | |
| Anticipated Errors and Solutions: **(What things might go wrong in the lesson and what the solution will be. An SOS activity should also be included)**  - Ss may not know what exactly artificial intelligence is.  Solution: Give a basic introduction during Lead-in.  - Ss may not understand the article well.  Solution: While discussing, go up to each groups and see if they understand. If not, help them.  - Ss may not be able to summarize well.  Solution: Explain how to give a summary. Choose only important parts. Main idea.  - Activity takes too long.  Solution: Give time warning.  - Activity is too short.  Solution: Give Ss more time for discussion. | | | |
| References: | | | |

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| **Lead-In or Pre-Task Part (Warm-Up Part to activate and create interest in the lesson.)** | | | |
| Materials: **(List the Names of all materials used in the Lead-In or Pre-Task Part of the lesson. Materials must be shown at the end of this document)**  None | | | |
| **Time:** | **Classroom Set Up:** | **Student Activity and Goals:** | **Teacher Procedure & Instructions:** |
| 2min  3min  4min | Whole  Whole  S-W | Ss understand the skill’s importance.  Ss realize the topic.  Ss will think critically and get comfortable speaking. | <Greeting>  Story about the importance of paraphrasing.  Story about how many movies focus on the danger of Artificial Intelligence. (A.I, I Robot, Ex-Machina, Terminator, Chappie, etc)  Ask Ss, “Does anyone have knowledge of A.I that was impressive to them?” or skip to “How would A.I help the society?” |

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| **Pre-Activity or Task Familiarization Part (Presentation Part Presenting the language structure to be covered in the lesson. Prepares students for the communication activity.)** | | | |
| Materials: **(List the Names of all materials used in the Pre-Activity or Task Familiarization Part of the lesson. Materials must be shown at the end of this document)**  “Microsoft’s Chat Bot Tay” Worksheet | | | |
| **Time:** | **Classroom Set Up:** | **Student Activity and Goals:** | **Teacher Procedure & Instructions:** |
| 1min  3min  3min  2min | Whole  Whole  S-W  Whole | Ss receive worksheets.  Ss follow along.  Ss share their opinions.  Ss understand paraphrasing by example. | Hand out “Microsoft’s Chat Bot Tay” Worksheets to each Ss.  Read with loud clear voice.  Ask Ss to tell what they thought were important in the story.  Read out what T’s paraphrase of the story. |

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| **Main Activity or Task Realization Part (Practice to Production Part Teacher lead practice of the language presented and move to communication based more student centered activity)** | | | |
| Materials: **(List the Names of all materials used in the Main Activity or Task Realization Part of the lesson. Materials must be shown at the end of this document)**  “Boston Dynamic’s Robots” Worksheet  “Turing Test” Worksheet  “Google’s AlphaGo” Worksheet | | | |
| **Time:** | **Classroom Set Up:** | **Student Activity and Goals:** | **Teacher Procedure & Instructions:** |
| 2min  5min  8min  8min | Groups  Groups  Groups  S-Whole | Get ready for group activity.  Ss reads the materials and have an understanding.  Ss practice paraphrasing.  Ss share their summary with the class. | Group the students into three groups of four and give different worksheets to each groups.  Tell the groups to go over the worksheet. If any question arises they can ask the group members or the teacher if it’s too unclear.  Tell the Ss to come up with one paraphrase or summary for their article to share with the class.  Ask one person from each group to share it with the class. |

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| **Post Activity or Post Task Part (Wrap-Up Part Close the Lesson on a high note to and consolidate language learned in a communication based activity new situation.)** | | | |
| Materials: **(List the Names of all materials used in the Post Activity or Post Task Part of the lesson. Materials must be shown at the end of this document)**  “Stephen Hawking’s Warning” Worksheet | | | |
| **Time:** | **Classroom Set Up:** | **Student Activity and Goals:** | **Teacher Procedure Instructions:** |
| 4min  1min  4min | Whole  Whole  Whole | Ss receive worksheet and reads the material.  Ss gets homework.  Ss confirm what they have learned and class is dismissed. | Hand out “Stephen Hawking’s Warning” Worksheets and tell them to read over.  Give the writing assignment as homework.  Close the class with the summary of the A.Is covered in class. Give personal thoughts of what artificial intelligence may bring to us in the future. Thank the students for their participation. |

**Boston Dynamic’s Robots**

Boston Dynamics is a wholly owned **subsidiary** of Google. The company was founded in 1992, and their ground-breaking work continues to inspire robotic technology all around the world. Marc Raibert and his colleagues first developed robots that ran and **maneuvered** like animals. Boston Dynamics has an extraordinary technical team of engineers and scientists that seamlessly combines advanced analytical thinking with **state-of-the-art** technological innovations. Atlas is the name of the robot that was announced only recently. It is a high mobility, humanoid robot designed to negotiate the rough, outdoor terrain. Atlas is **bipedal**, leaving the upper limbs free to lift, carry, and manipulate the environment. In extremely challenging terrain, Atlas is strong and coordinated enough to climb using hands and feet and to pick its way through congested spaces.

**Vocabulary**

Subsidiary- A company controlled by a holding company.

Maneuvered- A movement or series of moves requiring skill and care.

State-of-the-art- The most recent stage in the development of a product.

Bipedal- Using only two legs for walking.

In your own words, how would you simplify the above article? Try to paraphrase and provide a summary in a few sentences.

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**Turing Test**

The Turing test is a test, developed by [Alan Turing](https://en.wikipedia.org/wiki/Alan_Turing) in 1950, of a machine's ability to [**exhibit** intelligent behavior](https://en.wikipedia.org/wiki/Artificial_intelligence) comparable to that of a human. Turing proposed that a human **evaluator** would judge communication between a human and a machine that is programmed to generate human-like responses. The evaluator would be aware that one of the two partners in conversation is a machine, and all participants would be separated from one another. If the evaluator cannot reliably tell the machine from the human, that machine is said to have passed the test, thus identifying it as having intelligence similar to that of a human. No software **posing** as human has passed the test before 2014. A software program developed to **portray** a 13-year-old Ukrainian boy named Eugene Goostman passed the Turing Test after 33% of the judges were convinced that the bot was human. Marking it as the first software program to fool enough human judges into thinking it was an actual human itself.

**Vocabulary**

Exhibit- To display a quality or a type of behavior.

Evaluator- Something that judges.

Posing- Assume a particular attitude or position.

Portray- Depict someone or something.

In your own words, how would you simplify the above article? Try to paraphrase and provide a summary in a few sentences. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Microsoft’s Chat Bot Tay**

Tay, the chatbot, is a software program intended to have an intelligence level of an 18- to 24-year-old in the US. It was developed by Microsoft’s technology and research teams to experiment with and conduct research on how a software can react and adapt to human conversations. Tay is designed to engage and entertain people where they connect with each other through casual and playful conversations online. The more you chat with Tay the smarter she gets. The majority of this bot and human interaction took place in the website twitter.com. However, within 15-hours of its launch, Tay changed from having an innocent **blank-slate** personality into having a racist, **misogynistic**, and vulgar personality. Soon Microsoft had to shut down Tay to prevent further **inflammatory** remarks. This humorous event has raised some serious questions to answer, such as how are we going to teach AI using public data without **incorporating** the worst traits of humanity? If we create bots that learns from the public, do we care if some may exhibit immoral and corrupt character?

Vocabulary

Blank-slate- An absence of preconceived ideas or predetermined goals.

Misogynistic- Characterized by hating or not trusting women in general.

Inflammatory- Intended to arouse angry or violent feelings.

Incorporate- Take in or contain something as part of a whole.

In your own words, how would you simplify the above article? Try to paraphrase and provide a summary in a few sentences.

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**Google’s AlphaGo**

Go, or better known as Baduk in Korea, has its **origins** in ancient China more than 2,500 years ago. Considered as one of the most complex and having **myriad** of alternatives to progress through the game, Go was never won by a computer against a professional human player before the 2015. In October 2015, Google’s DeepMind department has developed a computer program called AlphaGo. By March 2016, AlphaGo has essentially ended the era where humans were superior against computer programs in the game of Go by achieving a victory of 4 to 1 against Lee Se-Dol, one of the most skilled, if not the best, player of Go. AlphaGo has had only 5 months to learn and **adapt** by examining pre-existing Go games in order to demonstrate this **feat**. It is probable to say no other human could catch up to the level of AlphaGo as it is constantly learning and evolving.

Vocabulary

Origin- The point or place where something begins.

Myriad- A countless or extremely great number.

Adapt- Make something suitable for a new use or purpose.

Feat- An achievement that requires great courage, skill, or strength.

In your own words, how would you simplify the above article? Try to paraphrase and provide a summary in a few sentences.

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**Stephen Hawking’s Warning**

Theoretical physicist Stephen Hawking announced his fears about the dangers of artificial intelligence, warning on multiple occasions that blindly embracing **pioneering** technology could trigger humanity's **annihilation**. Already, the military is currently [funding](http://www.theatlantic.com/technology/archive/2014/05/the-military-wants-to-teach-robots-right-from-wrong/370855/) research to produce more [**autonomous** and self-aware robots](http://articles.chicagotribune.com/2012-05-09/news/sns-rt-us-usa-defense-robotsbre84805n-20120508_1_robots-15-ton-military-truck-autonomy) to diminish the need for human soldiers to risk their lives. "Once humans develop artificial intelligence, it will take off on its own and redesign itself at an ever-increasing rate," Hawking warned [in recent months](http://www.independent.co.uk/news/science/stephen-hawking-transcendence-looks-at-the-implications-of-artificial-intelligence--but-are-we-taking-ai-seriously-enough-9313474.html). "Humans, who are limited by slow biological evolution, couldn't compete and would be **superseded**.”

Vocabulary

Pioneering- Involving new ideas or methods.

Annihilation- Total destruction.

Autonomous- Acting by itself without control from other things.

Supersede- Take the place of a person or thing previously in use.

Do you agree with Stephen Hawking that artificial intelligence may be a threat to humanity? Why or why not?

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