A computer implemented method includes presenting a text passage to at least one participant, the text passage including a set of text fragments, each of the set of text fragments which provide clues as to a correct answer to an overall question. The method further includes receiving the participant’s answers to sub-questions associated with the set of text fragments, and receiving a participant’s selected answer to an overall question related to the text passage. The method further includes computing a score for the at least one participant, based on the selected answer to the overall question and the answers to the sub-questions.
Fig. 1
She sighed when they all left the store. Partially in relief and partially in annoyance since none of them had actually purchased anything. She began to straighten up:

"This bunch deserved matching. The first one. Libby."

She thought when they all left the store. Partially in relief and partially in annoyance since none of them had actually purchased anything. She began to straighten up.

"This bunch deserved matching. The first one. Libby."

Then something happened that she didn't like.

Three teenage girls had wandered in and, of course, they were shopping separately and always watched everyone carefully. She thought: "She should have gone to school with them. But Libby took her job seriously and always watched everyone carefully."

She thought: "She should have gone to school with them. But Libby took her job seriously and always watched everyone carefully."
she stepped back to admire her work and the sweaters. She wasn't sure whether she liked the pink and green or red striped sweater best. She looked again and decided she actually liked the purple one... no wait, maybe the blue one would look better with her brown hair and hazel eyes.

Then something happened that she didn't like. Three teenage girls had wandered in and, of course, they were shopping separately. Teresa hoped they were here to shop. She hated when her classmates came into the store. Some of them, unfortunately, came in to shoplift and seemed to think she would look the other way because she went to school with them. But Teresa took her job seriously and always watched everyone carefully.

This bunch deserved watching. The first one, Libby Miller, a petite blonde who was captain of the basketball team, flitted around the store from display to display, watching her move around to the in-store music.

Haley Stukowski, a tall leader, walked around the store, picking up clothes.

**Fig. 3**
This bunch deserved watching. The first one, Libby Miller, a petite blonde who was captain of the basketball team, flitted around the store from display to display. Teresa was exhausted just watching her move around so quickly, dancing to the in-store music.

Haley Stukowski, a tall redhead who was a cheerleader, walked around the store, picking up clothes one by one. Teresa groaned as her gaze followed the untidy path Haley had already made. Even as she watched, Haley picked up yet another article, unfolded it, eyed it, and tossed it back without regard. I'm going to have to straighten that stuff.

Most worrisome of all was Caitlyn Randall, a brown-haired, brown eyed junior who had already been arrested once for shoplifting. Teresa watched as Caitlyn wandered the store. She stayed away from the racks of clothes and didn't seem to pick anything up or even touch the fabrics.
The first thing you will want to look at when you open an unsolved mystery file are the suspects and number of clues there are. In order to get a perfect score you will need to find all the clues and solve the mystery. Clues are represented as individual sentences. 4 clues means there are four sentences that you will need to correctly identify.

course, they were shopping separately. Teresa hoped they were here to shop. She hated when her classmates came into the store. Some of them, unfortunately, came in to shop lift and seemed to think she would look the other way because she went to school with them. But Teresa took her job seriously and always watched everyone carefully.

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Fig. 5
Today's mystery:
The mystery of the Missing Pink Sweater by Jan Doe

1. Teresa McGrew loved her job.

2. She loved being surrounded by all the fashionable clothes. She enjoyed folding them and touching them and arranging them by color.

3. Three girls entered the store. The first one, Libby Miller was a petite blonde.

4. The second one, Haley Stukowski was a tall redhead. She always wore pink.

5. The third girl, Caitlyn Randall, was brown-haired and had once been arrested for shoplifting.

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Fig. 6

START

S100

PARTICIPANT INITIATES PLAY

S102

PARTICIPANT IS AUTHENTICATED TO THE GAME SERVER

S104

GAME IS DISPLAYED TO PARTICIPANT

S106

PARTICIPANT'S ANSWERS ARE STORED

S108

PARTICIPANT'S SCORE IS COMPUTED

S110

SCORING INFORMATION IS POSTED, DISPLAYED OR OTHERWISE COMMUNICATED TO PARTICIPANT

S112

END

S114

Fig. 7
COMPUTER-IMPLEMENTED DEDUCTIVE REASONING GAME

[0001] This application claims the priority of U.S. Provisional Application Ser. No. 61/103,063, filed Oct. 6, 2008, and U.S. Provisional Application Ser. No. 60/991,032, filed Nov. 29, 2007, the disclosures of which are incorporated herein in their entireties by reference.

BACKGROUND

[0002] The exemplary embodiment relates to a deductive reasoning game and to a method of providing such a game to participants via a network, e.g., through a web browser.

[0003] Web-based deductive reasoning games provide participants with the opportunity to test their deductive skills by reading a short mystery story and then identifying one of a group of suspects as the perpetrator of the crime laid out in the story. Typically feedback is immediate, with the participant being advised as to whether he or she has correctly identified the correct suspect. However, the participant has no way of knowing whether he correctly interpreted all of the clues in the story.

[0004] Comprehension tests given to students also require students to employ deduction in their answers to questions, based on their understanding of a passage of text. Students generally find such tests boring, and teachers often do not have the time to provide sufficient feedback to allow students to fully appreciate their mistakes and improve upon their comprehension skills.

[0005] There remains a need to provide participants with a deductive reasoning game which will provide entertainment while also providing feedback for improving the participants’ comprehension and deductive reasoning skills.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] FIG. 1 is a functional block diagram of a system for interactive participation in a web-based game;

[0010] FIG. 2 illustrates an exemplary screenshot of a web browser displaying a web-based deductive reasoning game in accordance with one embodiment;

[0011] FIG. 3 is an enlarged view of a portion of an exemplary screenshot during the playing of the deductive reasoning game;

[0012] FIG. 4 is an enlarged view of a portion of an exemplary screenshot during the playing of the deductive reasoning game, showing participant-selected text fragments highlighted;

[0013] FIG. 5 illustrates instructions for playing the web-based game which may be displayed by the exemplary web-browser;

[0014] FIG. 6 illustrates an exemplary screenshot of a web browser displaying a web-based deductive reasoning game in accordance with another embodiment of the game; and

[0015] FIG. 7 illustrates a method for playing a web-based game which may be performed by the system of FIG. 1.

DETAILED DESCRIPTION

[0016] Aspects of the exemplary embodiment relate to a web-based deductive reasoning game which provides participants with feedback on the extent to which they made correct inferences in reaching a conclusion as to which of a set of choices best fits a question relating to a passage of text. In various aspects, the participant is required to find and identify the clues to solving the mystery embedded within the story. The participant is then required to show how the clue aids in solving the mystery. The game thus serves as an educational tool for assisting participants, such as schoolchildren, in acquiring reading and comprehension skills.

[0017] As used herein, a participant can be any person who interacts with an interactive game through his or her computer device. The exemplary game is web-based. By web-based, it is meant that a plurality of participant devices communicate via a network with a common server which hosts at least part of the software instructions which are executed in the course of the game.
[0018] With reference to FIG. 1, a system for interactive participation in a web-based game includes a participant device capable of displaying a web browser. By way of example, two participant devices 10, 12 are shown, although it is to be appreciated that many more of such participant devices may be included. In the illustrated embodiment, the participant device may be a general purpose computing device, such as a desktop computer, laptop computer, portable digital assistant (PDA), mobile phone with internet capability, or a dedicated computing device. The participant device is capable of communicating with a game server 14 via a network 16, such as a wired or wireless network, e.g., a local area network (LAN) or wide area network (WLAN), such as the Internet, a telephone connection, or the like. In the exemplary embodiment, the participant devices 10, 12 are linked to the game server via the Internet 17.

[0019] The illustrated participant device 10 (and similarly 12) includes memory 18, for storing processing instructions for displaying the game and interacting with the game server 14, and a processor 20, such as a central processing unit (CPU), in communication with the memory 18, which executes the instructions. The device 10 also includes a display, such as a screen 21, which displays a web browser, and a user input device 22, such as a keyboard, keypad, touch screen, cursor control device, joystick, microphone, combination thereof, or the like whereby a user interacts with the game server 14. The web browser may be operated by a web browser software application 23, which may be stored in memory 18. The web browser application enables a user to display and interact with text, images and other information located on the website hosted by the game server 14. Components of the participant device may be connected via a data/control bus 24. An input/output device 25, such as a modem, allows the participant device 10 to communicate with the network 16. The instructions for displaying the game and interacting with the game server 14 may be downloaded from the game server or input from a portable storage medium 26, such as a disk.

[0020] The game server 14 may be embodied in one or more computing devices and may host a website which can be accessed through standard internet protocols using a website address which provides access to the public portal of the game server. For example, the game server is accessed with a representation of its IP address in the format www.5minutemystery.com, or other suitable address. The game server may cause web pages to be displayed by the participant device, which may be written in HyperText Markup Language (“HTML”) or other commonly understood format. In other embodiments, a link to the network server is displayed on the participant device, e.g., through installation of appropriate software on the participant device. In yet other embodiments, a participant may receive a periodic, e.g., daily link to the site via email.

[0021] The exemplary game server 14 includes memory 27 and a processor 28, such as a CPU, in communication with the memory. Memory 27 stores instructions for presenting a text passage to at least one participant and for receiving answers input by the participant. These may include instructions for interacting with a participant device for displaying web pages thereon and for receiving inputs from participant devices via the network. The memory 27 may represent any type of computer readable medium such as random access memory (RAM), read only memory (ROM), magnetic disk or tape, optical disk, flash memory, or holographic memory. In one embodiment, the memory 27 comprises a combination of random access memory and read only memory. In some embodiments, the processor 28 and memory 27 may be combined in a single chip. A network interface 29 allows the server to communicate with other devices via the network 16. Components of the server may be linked by a data/control bus 30 and may be resident in a single computing device or distributed over several computing devices.

[0022] FIGS. 2-5 illustrate one embodiment of the game. As shown in FIG. 2, through interaction with the game server, the web browser displays a passage of text 31 on the participant's screen 21, which comprises a set of text fragments, such as sentences 32 in a natural language, such as English. There may be many such text passages, with a new one released periodically, such as daily or weekly. The passage of text 31 may be a single paragraph or several paragraphs in length. In general, the passage is one which can be read in a short period of time, such as about five minutes. The passage 31 may be a passage of prose, such as a story, verse, a non-fiction article, or any suitable passage aimed towards the reading level and comprehension abilities of the participants. Each of the text fragments 32 in the set of text fragments which make up the text passage 31 can be a sentence, multiple sentences, paragraph or the like. In one embodiment, each text fragment is arranged on a separate line. In this case, the text fragment 32 may be a complete sentence, part of a sentence or parts of multiple sentences depending upon how many words are on each line. In other embodiments the text fragments are sentences which make up a paragraph or several paragraphs of the story, as shown in FIG. 2.

[0023] An overall question 34 is displayed, for example, at the end of the text passage 31. The overall question 34 (e.g., a question seeking the participant to solve the mystery) is one which can be answered through deductive reasoning, i.e., the overall answer is not explicitly laid out in the passage of text.

[0024] Each text fragment 32 constitutes a separate record which is a potential clue to the solution of the mystery, i.e., in the exemplary embodiment, the participant is not informed, prior to completion of the game, which of the text fragments are clues and which are not. In the exemplary embodiment, a subset of the set of text fragments thus provides actual clues, while the rest of the text fragments do not. One of the participant's tasks is to identify, from among the potential clues, which are the actual clues to the solution of the mystery. In the embodiment illustrated in FIG. 2, only a predetermined number, e.g., four, of the text fragments include actual clues (i.e., bases for an inference) to the correct answer to the overall question 34. The number of clues in the particular passage 30 may be displayed on the screen, e.g., at 36. Four clues, for example, means there are four sentences that the participant needs to correctly identify as being a clue. It is to be appreciated that there could alternatively be 2, 3, 5, 6, 7, or more clues, with the number identified. In the exemplary embodiment, the participant's score is a function of the number of clues correctly identified in addition to correctly answering the overall question 34. For example, points are awarded for correctly identifying each of the clues. In other embodiments, the participant may be provided with information about the number of clues, without the exact number being provided, such as “there are at least three clues,” “there are no more than seven clues,” “there are from 3 to 7 clues,” or the like.

[0025] The clues are generally statements from which the participant can draw reasonable inferences. For example, the text passage 31 may be a mystery story in which the partici-
pant is asked to answer an overall question 34 as to which of a set of suspects committed the crime described in the story, how the crime was committed, or the like. As will be appreciated, any question which can be reasonably answered through a set of inferences based on the text passage (and, where appropriate the participants’ knowledge) is amenable to use in the exemplary embodiment. For example, in a geographical, political, or historical context, the passage 31 may enable the participants to draw inferences as to which state of a set of states is the correct location, an event which has or will take place, or a person who is the subject of the passage or is otherwise related to the passage.

[0026] For ease of discussion, the invention will be described in terms of a mystery story, appreciating that it is equally applicable to other contexts.

[0027] A list 38 of candidate answers to the question 34, which in the illustrated embodiment are names of four suspects, is displayed e.g., adjacent the text passage 32.

[0028] The participant selects a particular text fragment 32 as a clue, e.g., by clicking on one of the text fragments or actuating a selectable icon or other active area in the screen. For example, as shown in FIG. 3, the user moves the cursor 40 to a candidate clue sentence 42 and clicks on the sentence. The sentence may be highlighted, in a first color, e.g., blue, to identify the complete sentence that the user has selected as a candidate clue. If the user does not wish to select this sentence, he may click on another.

[0029] When the participant clicks on a text fragment 32, a drop down box 44 opens up (FIG. 3). The drop down box serves as a sub-question which is related to the highlighted text fragment 42, which is used to input a participant’s inference about the highlighted text fragment. In the exemplary embodiment, the participant first selects one of the candidate answers (here a suspect name) from a drop down menu 46. The participant then selects an inference, from a menu of inferences 48, such as one of “exonerates” and “incriminates.” The participant may be given the opportunity to save the selection by actuating a save button 50, which causes the information on the selection of the text fragment, candidate answer, and inference to be stored. In other embodiments, the information may be automatically stored once the user clicks on the selected inference.

[0030] To assist the participant, the sentences that the participant has selected as the clue sentences may be highlighted in some way. For example, as shown in FIG. 4, a second color (e.g., green) may be used to highlight sentences, such as sentence 52 for which the participant has selected to exonerate the suspect and a third color (e.g., red) for sentences 54 that the participant has selected to incriminate the suspect.

[0031] After reading the passage, the participant is asked to select an overall answer 34 from a set of candidate answers (such as select one of the set of suspects), e.g., by clicking on a selectable area of the screen corresponding to the selected answer.

[0032] In the embodiment of FIG. 2, once the participant has identified four (or other predetermined number) of candidate clues, the participant proceeds to solve the mystery by identifying one of the candidate answers 38 as the answer to the overall question 34. In the exemplary embodiment, the participant clicks on an active area of the screen 56 (e.g., entitled “solve this mystery”) in the overall question area 58 of the screen (FIG. 2). The area 58 includes a drop down box 60 which lists the candidate answers (e.g., the four suspects) and clicks on one of them to select one of the candidate answers as the participants answer to the question. For example, the area 58 may display the words I think that ( ) is guilty of the crime. The participant supplies the answer by clicking on one of the suspects.

[0033] Additionally, the game is designed to provide a score or ranking as to the participant's deductive reasoning by providing a set of sub-questions. The scoring of the mystery or other word problem is analogous to the math equivalent of “showing your work.” Included in this is the concept of finding clues and then marking them in some manner as to whether they point to a suspect/solution or away from a suspect/solution. Finding and identifying the clues is the basis of the scoring system.

[0034] In either embodiment, the game server 14 may compute a score for the participant, based on whether or not the participant correctly identified the perpetrator and how many of the sub-questions were correctly answered. The score may weight the answers, e.g., by weighting the overall answer more heavily than the answers to the sub-questions. For example, the participant may be awarded one point for each correctly answered sub-question and ten points for correctly answering the overall question. There may be a penalty for “guessing”, by deducting a partial point for each incorrect answer. In some embodiments, the score may only take into account the sub-question answers if the overall question is correctly answered. In the embodiment of FIG. 4, for example, the participant is rewarded for correctly identifying the inference of each of the four text fragments which provides a clue. However, points may be deducted if the participant picks a text fragment which does not provide a clue.

[0035] Points can be scored even if the participant does not solve the mystery correctly. In order to get the maximum score, the participant must not only solve the mystery, but must also identify all of the clues and draw the correct inference for each. If the participant answers more than the stated number of clues, he can expect to lose points for answering sub-questions for non-clues. For example, one scoring system may be as follows:

[0036] 1. For each sentence marked correctly, including both the correct suspect as well as incriminate/exonerate, 2 points are awarded.

[0037] 2. For each sentence incorrectly marked, 1 point is deducted. This includes marking a sentence that is not a clue, marking the wrong suspect or incorrectly marking incriminate/exonerate.

[0038] For solving the mystery, 10 points are awarded.

[0039] In the exemplary embodiment, where there are four clues, the maximum score would be 18 points (4 clues at 2 points each plus 10 for solving the mystery).

[0040] Bonus points may also be awarded. For example, for more difficult mysteries, 3 bonus points could be awarded for solving the mystery or 5 points if the mystery is very difficult. The level of difficulty of a mystery story may be posted adjacent the passage of text 31.

[0041] Of course, other scoring protocols which provide different weights to the sub-questions and final question are also contemplated.

[0042] The score can be used to rank a set of participants and identify a winning participant or group of winning participants from the set. In another embodiment, scores from participants in first and second groups of participants may be combined or otherwise employed to allow groups of participants, such as schools or classes to compete as a guild. In the case of a school, for example, each classroom teacher may be supplied with a master password which allows passwords for each of the individual students in the class to be linked to the master password.

[0043] In the exemplary embodiment, the game server memory 27 stores answers received from a number of partici-
pants the processor 28 executes instructions for computing the scores for each of the participants and any group scores/ rankings. In one embodiment, the game is accessible to participants for a fixed time period, such as one day, and the scores are not released by the game server until a subsequent time period, such as the next day, when a new game may be posted. The game server 14 may be implemented in software, hardware or a combination thereof.

A link 70 ("how to play") which takes the participant to a page which displays instructions for playing the game, which may be supplemented with exemplary screen shots to illustrate the instructions. FIG. 5 displays a screen-shot of a first page of an exemplary set of instructions. A simplified version of the rules may be displayed on the home-page prior to sign in.

A link 72 ("top sleuths") may take the participant to another page where screen names of top scorers for a particular game are displayed.

A link 74 ("leagues") takes the participant to a page which allows a participant to join a league of participants who are competing against each other or jointly against other leagues. The user may also be able to start a league.

A link 76 ("mystery archives") takes the participant to a page where he or she can access an archive of prior games. The participant is notified of his score once the archived game is played. The archived games may be keyword searchable, searchable by title, by author, by date or other indexing scheme.

A link 78 takes the participant to a forum where participants can discuss mysteries or submit their own mysteries.

A link 80 takes the participant to a page where a participant can submit a mystery for consideration by the game organizers. A remuneration may be offered for games which are posted on the site. Additionally the author may be attributed, as at 82.

A link 84 may be provided for schools to participate as a group.

Prior to displaying a mystery story 31, a sign in link (not shown) may be provided for a participant to access the game by entering a password and/or screen name 86, or other verification of entitlement to do so.

FIG. 6 displays a screenshot of another embodiment of the game which is similar to that shown in FIGS. 2-5, except as noted. In this embodiment, each text fragment 32 is separated from the others, e.g., as a line of text, which may be numbered. At least some (or all) of the text fragments 32 provide a clue to the correct answer, i.e., at least some of the text fragments 32 each have a respective clue inherent in it as to the overall answer. In one embodiment, each text fragment provides only one clue.

Each text fragment may have an associated icon 90 which, when the participant clicks on it, opens a drop down box 92, which may be analogous to box 44. In the exemplary embodiment, the drop down box displays a set of candidate answers/questions, such as the four suspects. Alternatively, as for the embodiment of FIG. 2, the drop down box 92 may open in response to the participant clicking on the sentence. These candidate answers/questions may be the same candidate answers as for the overall question or otherwise related to them. The participant is instructed to select an answer which best fits the associated text fragment. For example, in the case of a mystery story, the drop down box 92 may allow the participant to select a suspect from the list 38 of suspects that the clue provided in the text fragment makes look more (or less) guilty of the crime, e.g., by allowing the participant to select between a tub labeled "exonerates" or "innocent" and another labeled "incriminates" or "guilty." Or, the icon may allow the user to identify, for one or more of the suspects, whether the clue makes them appear more or less likely to be the final answer (i.e., in the case of a mystery story, more or less guilty of the crime). For example, as illustrated in FIG. 6, the participant selects the suspect "Theresa" by clicking on the box next to that suspect. This displays two answers, "guilty" and "innocent." The participant picks one of these answers, based on whether he or she deduces that Theresa is more likely to be guilty (or innocent), based on the clue in the associated record 32. In one embodiment, the final question 34 is provided by the icon 90 for the final record, rather than in a separate area 58.

Each text fragment 32 provides an opportunity to assess whether the participant's deductive reasoning regarding that text fragment was correct. Each of these text fragments may be seen as posing a sub-question which may have the same set of candidate answers as the overall question, as for the embodiment of FIG. 2. A user identifies which sentences are clues by clicking on the corresponding icons and answering the presented sub-question.

In the embodiment shown in FIG. 6, each line of text is an individual record. Having each line of text be its own record means that even on small PDAs and hand held phones with small screens, the lines are each kept unique. At the end of each line is an icon which serves as a button. In the case of a mystery, the icon may be a magnifying glass. Clicking on this button brings up the list of suspects. In one embodiment, next to each suspect's name is the option of "guilty" or "innocent." Marking the suspect guilty means that the participant believes that the potential clue that begins on the marked line points to that suspect as being guilty. Marking the suspect innocent means that the potential clue that begins on that line points to the suspect being innocent. Other methods of marking the lines to evidence the deductive reasoning of the participant are contemplated. One such variant would be to click on the line of text itself to highlight it in some way. One click may denote "guilty," two clicks for "innocent," or similar. Any sort of check boxes, drop down menu, scroll down menu, or the like to the side of each line of text may be used to accomplish the same thing.

In the exemplary embodiments disclosed herein, only a subset of the text fragments are actual clues. All the text fragments are, however, potential clues. The participant's objective is to identify which text fragments are the actual clues and answer the associated sub-questions of only those text fragments.

In other embodiments, all the text fragments may be clues.

FIG. 7 illustrates an exemplary method for playing a web based game using the system of FIG. 1. The method begins at S100. At S102, a participant initiates play, e.g., interacts with the web browser to access the website for the interactive game. At S104, the participant is authenticated and authorized to play. For example, the participant may be asked for identification, such as a screen name and or password (illustrated at 46 in FIG. 2), which the server 14 may authenticate prior to displaying a game. The participant may be required to pay for the game on a per game basis or may
participate via a group contract, such as an annual contract with a fixed fee arranged with the participant’s organization, e.g., school.

At S106, the game server 14 causes the game for that time period to be presented, e.g., displayed, via the participant’s web browser. The game server may cause the web browser to present, e.g., display the overall question 34 to be answered (either directly as shown in FIG. 2, or via a drop down box actuated by an icon or other selectively actuable display means). The web browser is also caused to present, e.g., display, the passage of text 31 constituting the mystery to be solved and from which the overall answer is to be deduced. In the embodiment of FIG. 6, the screen may also display icons 90 associated with each record 32 in the passage 31. In this embodiment, the participant may be required to answer the sub-question associated with each icon 90 before proceeding to the next icon. Or, the participant may have the option to skip one or more of the icons 90. In the embodiment of FIG. 2, the participant may be instructed to read the entire passage 31 before selecting only the required number (e.g. 4) of sentences (in any order), which are clues and for each one, answering the respective sub-question. The participant may be given a fixed time to complete the game, i.e., to answer as many of the sub-questions as he can and to provide the overall answer. At the end of the time period, the game server stores the participant’s answers to the sub-questions and the overall answer (S108). After the participant clicks on “solve mystery” he is taken to a results page. If it is the new mystery of the day the page may inform the participant that his results will be e-mailed to him the following day.

At this point, the participant may log off from the website and/or other participants may play the game.

At S110, the game server 14 computes a score based on the participant’s answers to the overall question 34 and sub-questions. The score may be used to compute the overall top scorer for that particular game and/or a fixed time period. The scores may also be used to rank participants from the same class or school (which may be associated by master password(s)) or to rank groups of participants, such as two or more schools or classes.

At S112, information 96 derived from the scoring/ranking may be posted on the website and made accessible to the participants in the next time period, such as the next day. Or, the information may be conveyed to the participants' holder of the master password by email, text message, telephone message, or other communication means. The information 96 may be tailored to be readily understood by the participants, such as “The winner of yesterday’s mystery is Mrs. Smith’s class.” On the website, the winners or other ranking may be displayed only after participant log-in so that the participant only sees information relevant to his or her user name or the master password or guild.

If the participant has accessed one of the archived mysteries, the participant’s score may be accessed immediately.

The method ends at S114.

While in the exemplary embodiment, the text 31 is displayed visually on screen, in other embodiments, which may be suited to the visually impaired or non-readers, the text passage 31 may be presented in other ways, e.g. aurally. For example, the participant hears a recorded text over a loudspeaker 100 of the participant device 10, 12. The participant is able to hear the text after hearing it through once and, using the keypad or the like, to actuate a button when one of the text fragments in the set of text fragments is heard. The sub-question may then be presented aurally, again on the loudspeaker 100 and the participant inputs an answer, e.g., through pressing selected button(s) on the keypad. In other embodiments, the participant may be prompted to speak the correct answer to a sub-question and/or overall question into a microphone 22 associated with the participant device 10, 12. The spoken answer(s) are received by the system and analyzed using voice recognition techniques, e.g., by a processing application stored in the game server memory 27.

The method illustrated in FIG. 7 may be implemented in a computer program product or products that may be executed on a computer. The computer program product may be a tangible computer-readable recording medium on which a control program is recorded, such as a disk or hard drive, or may be a transmittable carrier wave in which the control program is embodied as a data signal. Common forms of computer-readable media include, for example, floppy disks, flexible disks, hard disks, magnetic tape, or any other magnetic storage medium, CD-ROM, DVD, or any other optical medium, a RAM, a PROM, an EPROM, a FLASH-EPROM, or other memory chip or cartridge, transmission media, such as acoustic or light waves, such as those generated during radio wave and infrared data communications, and the like, or any other medium from which a computer can read and use. As will be appreciated, the method may be implemented by two computer program products, one for the game server and one for operating the web browser on the participant device.

The exemplary method may be implemented on one or more general purpose computers, special purpose computer(s), a programmed microprocessor or microcontroller and peripheral integrated circuit elements, an ASIC or other integrated circuit, a digital signal processor, a hardwired electronic or logic circuit such as a discrete element circuit, a programmable logic device such as a PLD, PLA, FPGA, or PAL, or the like. In general, any device capable of implementing the flowchart shown in FIG. 7, can be used to implement the method for playing the deductive reasoning game.

The invention has been described with reference to the preferred embodiments. Obviously, modifications and alterations will occur to others upon reading and understanding the preceding detailed description. It is intended that the invention be construed as including all such modifications and alterations.

We claim:

1. A computer implemented method comprising:
   presenting a text passage to at least one participant, the text passage comprising a set of text fragments, each of a subset of the set of text fragments providing a clue as to an answer to an overall question related to the text passage;
   providing for the participant to input answers to sub-questions associated with a group of the text fragments which the participant deduces provide clues as to the answer to the overall question;
   providing for the participant to select an answer to the overall question; and
   computing a score for the at least one participant based on the selected answer to the overall question and the input answers to the sub-questions.

2. The method of claim 1, wherein the text passage comprises a mystery story and the overall question relates to the perpetrator of a crime described in the mystery story and the answer to the overall question is the name of a suspect selected from a group of suspects.
3. The method of claim 1, wherein the text passage comprises a non-fiction passage and the overall question relates to at least one of a location, event, and person.
4. The method of claim 1, further comprising ranking a group of participants based on the computed scores.
5. The method of claim 1, wherein the computing of the score comprises computing a first score based on the answers of a first set of participants, computing a second score based on the answers of a second set of participants, and comparing the first and second scores.
6. The method of claim 1, wherein the presenting includes displaying the text passage on a screen.
7. The method of claim 6, wherein the text passage is displayed by a web browser application on a participant’s computing device.
8. The method of claim 6, further comprising providing an active area of the screen for each of the set of text fragments, which when actuated, causes a sub-question associated with the respective text fragment to be displayed.
9. The method of claim 8, wherein the active areas of the screen are identified by one of icons and the displayed text fragments.
10. The method of claim 1, wherein candidate answers for each sub-question comprise candidate answers for the overall question or concern the candidate answers for the overall question.
11. The method of claim 1, wherein each of the sub-questions requires the participant to indicate, based on the associated text fragment, whether a participant-selected one of the candidate answers is more or less likely to be the answer to the overall question.
12. The method of claim 1, wherein the participant’s answer to the overall question is selected from a set of candidate answers and the participant’s answers to the sub-questions are all selected from the same set of candidate answers.
13. The method of claim 1, wherein the participant’s answer to the overall question is selected from a set of candidate answers and the sub-questions are all questions each related to at least some of the same set of candidate answers.
14. The method of claim 1, wherein the text passage comprises at least one paragraph.
15. The method of claim 1, wherein the text fragments each comprise at least one sentence.
16. The method of claim 1, wherein the text fragments each comprise an individual line of text.
17. The method of claim 1, wherein a respective sub-question is associated with each of the text fragments the set of text fragments.
18. The method of claim 1, further comprising identifying, to the participant, how many of the text fragments are in the subset.
19. The method of claim 18, wherein the scoring penalizes the participant for answering fewer or more sub-questions than the identified number of the text fragments that are in the subset.
20. The method of claim 1, wherein the participant is prompted to select, from the set of text fragments, only those text fragments that the participant considers are among the subset of text fragments which provide a clue as to a correct answer to the overall question and to answer the respective sub-question for each.
21. The method of claim 1, wherein the computing of the score includes reducing the score when the participant answers a sub-question associated with one of the text fragments which is not in the subset of text fragments.
22. The method of claim 1, wherein the computed score is also based on whether the participant has correctly identified each of the text fragments forming the subset of text fragments from the text.
23. The method of claim 1, further comprising causing the participant-selected text fragments to be highlighted.
24. The method of claim 1, further comprising providing a fixed time period for the participant to answer the overall question and sub-questions.
25. A computer program product encoding instructions, which when executed on a computer causes the computer to perform the method of claim 1.
26. A printout of at least one screen displayed for performing the method of claim 1.
27. A system for playing a deductive reasoning game comprising:
memory which stores instructions for presenting a text passage to at least one participant, the text passage comprising a set of text fragments, each of a subset of the set of text fragments providing a clue as to a correct answer to the overall question;
a processor in communication with the memory which:
receives a participant’s selected answer to an overall question related to the text passage, receives a participant’s answers to sub-questions associated with selected ones of the set of text fragments, and computes a score for the at least one participant based on the selected answer to the overall question and the received answers to the sub-questions.
28. The system of claim 27, wherein the score is a function of whether the participant has correctly identified each of the text fragments in the subset of text fragments.
29. A computer implemented method comprising:
displaying on a screen a text passage describing a mystery to at least one participant, the text passage comprising a set of text fragments which includes a predefined subset of text fragments, each of the text fragments in the subset providing a clue as to an overall answer to the mystery; optionally, identifying, to the at least one participant, how many text fragments there are in the predefined subset of text fragments;
providing for the participant to interactively select from the set of text fragments, a group of the text fragments and for each of the group of text fragments, to input an answer to a sub-question and to input an answer an overall question related to solving the mystery, receiving the participant’s input answers to the sub-questions and to the overall question;
computing a score for the at least one participant based on the input answer to the overall question and the input answers to the sub-questions which takes into account whether the participant correctly identified the predefined subset of text fragments.
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