Patent Application

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Name of invention: "Puzzle that improves cognitive abilities"

Patent Application Details

Name of Invention: Puzzle that improves cognitive abilities and utilizes a manufacturing method to enact this purpose.

Technical fields:
[0001] The present invention refers to a puzzle and a manufacturing method for the said puzzle. Specifically, this puzzle is utilized to improve cognitive abilities.

Technology behind the invention:

[0003] A puzzle is a type of game in which words, letters, and shapes are placed together. A puzzle divides a picture or photo into a larger number of pieces and requires putting the divided pieces back together. Puzzles have become widespread and are commonly used as games or hobbies.

[0004] In puzzles comprised of photos, many of these puzzles contain memories of a time when the photo was taken and are often recalled through the process of putting the puzzle together. The production of puzzles using photos and or other printmaking forms also exist.

[0005] This invention exists in conjunction with the fact that the number of patients with Alzheimer's (also referred to as dementia) is increasing along with a growing elderly population.

[0006]: A typical symptom of Alzheimer's results in memory loss and a decrease in cognitive recognition skills, especially regarding people or objects.

[0007]: In particular, there are cases in which patients with Alzheimer's disease cannot recognize their own family members, impacting not only the patient but those around them. In these cases, patients and their families undergo great psychological and emotional distress, in addition to encountering the physical and economic challenges associated with treating Alzheimer's.

[0008]: Therefore, it is necessary to improve cognitive abilities in patients suffering from Alzheimer's by utilizing puzzles that can be easily accessed and solved by all people—regardless of their age or gender.

[0009]: In particular, there is a need for easily usable and manufacturable puzzles that can assist Alzheimer's patients in maintaining their memory, particularly their facial and name recognition skills.

Patent Literature:
[0011]: Patent Document 0001

Contents of the invention:
Tasks to be solved:

[0012] In order to solve the problems described above, the present invention aims to improve cognitive abilities in patients suffering from degenerative diseases, such as Alzheimer's. The goal is to propose a puzzle and a method for manufacturing that accomplishes this.

[0013] This invention, then, suggests a puzzle that is both easily usable and manufacturable and helps Alzheimer's patients maintain their memory through facial and name recognition skills.

[0014] Other objects of the desired invention are understood through a description of the following approaches:

Means to solve problems:

[0016] To achieve the aforementioned object, a method for manufacturing the desired puzzle is provided.

[0017] The preferred method for embodying the present invention involves: receiving information through submitted pictures that can then be translated into puzzles with the names of the people in the submitted picture included. The displayed names of people's faces will be manufactured using the input information. The finished product will result in a formed puzzle that matches the faces and names of people in the puzzle user's lives.

[0018] Matching and displaying the names and faces of the people in submitted pictures will result in utilizing input information and may require a face recognition process.

[0019] Forming a puzzle to separate the matched faces and names may include separating parts of names into separate pieces of the puzzle.

[0020] The manufacturing method may be implemented utilizing a program from a computing device.

[0022] Another aspect of the present invention will focus on improving cognitive abilities and is provided here.

[0023] According to a preferred embodiment of the present invention, manufacturing a puzzle that improves cognitive abilities will require: receiving information, including a submitted

picture, the names of the people included in the submitted picture, matching and displaying names and faces according to the input information, forming a puzzle to separate the matched faces and names, and putting together the puzzle.

[0024] Matching and displaying the names and faces of the people in pictures will result in utilizing input information and may require a face recognition process.

[0025] Forming a puzzle to separate the matched faces and names may include separating parts of names into separate pieces of the puzzle.

[0026] The manufacturing method may be implemented utilizing a program from a computing device.

Effects of the Invention:

[0028] As described above, producing a puzzle that improves cognitive abilities using a manufacturing method that embodies this will cognitively aid those suffering from diseases such as Alzheimer's. These puzzles can be easily accessed and used by people of all ages and genders, and include a variety of benefits.

[0029] The invention provides an easily usable and manufacturable puzzle that can help Alzheimer's patients, in particular, maintain their memory and recognize the faces and names of family members, as well as those around them.

Brief description of the drawing:

[0031] Figure 1 is a flow chart exhibiting the sequences needed to manufacture a puzzle that improves cognitive abilities, according to the preferred embodiment of the present invention.

Figure 2 is a diagram illustrating the configuration of a puzzle that improves cognitive abilities, according to the preferred embodiment of the present invention.

Figure 3 is a diagram illustrating an additional configuration of a puzzle that improves cognitive abilities, according to the preferred embodiment of the present invention.

Specific content for implementing the invention:

[0032] As the present invention can include various changes and have various forms, specific embodiments are illustrated in the drawings and described in-depth in the detailed descriptions. However, these descriptions are not intended to limit the present invention to specific embodiments and should be understood as an invention with all modifications, equivalents, and substitutes included in the intent and scope of the present invention.

[0033] Hereinafter, a preferred embodiment according to the present invention will be described in detail with reference to the accompanying drawings. Corresponding components and overlapping descriptions will be omitted.

[0034] First, referencing Figure 1, the order for manufacturing a puzzle that improves cognitive abilities will be reviewed.

[0035] Figure 1 is a flowchart illustrating a sequence to implement a method for manufacturing a puzzle that improves cognitive abilities, according to the preferred embodiment of the present invention.

[0036] As shown in Figure 1, information from a submitted picture is made into a puzzle. The names of people in the submitted picture are the first input.

[0037] According to the input information, the names of people in the picture are matched and displayed.

[0038] Matching names to people's faces in photos according to input information is one example of a facial recognition process. This sequence is not limited to one type of facial recognition process.

[0039] Next, after the puzzle is formed, the faces and names of the people included in it are separated.

[0040] The puzzle can be formed in various ways, depending on the size of the puzzle manufactured, the number of components, and the shape of the puzzle pieces.

[0041] In order to form a puzzle that separates faces from names, the position and/or size of the displayed names can be adjusted in the process of matching and displaying the names and faces of the people in the submitted picture.

[0042] In addition to separating faces and names, it is also possible to separate parts of a name so that the name can be recalled or used as a hint to recall a complete name.

[0043] Finally, the puzzle is completed by outputting the puzzle thus formed.

[0044] Outputting a puzzle means creating a real-life puzzle. The completion of the puzzle will require cutting along the puzzle lines to separate faces and names after transferring the picture and names displayed on the puzzle board. This is a common method, but the invention is not limited to this process, as it can be implemented in other ways.

[0045] On the other hand, the process of creating such a puzzle may be implemented utilizing a program from a computing device, where matching people's faces and names to form puzzles may be performed automatically in the said computing device.

[0046] Additionally, the actual production of such puzzles may be implemented as programs that can run on computing devices, not only physical puzzles, so that they can be used on PCs (personal computers), tablets, smartphones, and such.

[0047] For instance, on an application running on a PC or smartphone, the people and names in the submitted picture are automatically matched, while the puzzle is still created using the desired picture. It is also possible to implement a matching game on PCs, tablets, smartphones, etc.

[0048] In this way, matching a face to a name can be extremely useful to assist Alzheimer's patients in recognizing their family members in their daily interactions.

[0049] The more a puzzle user puts a puzzle together, the easier it is to remember people's names and faces, which is particularly useful for Alzheimer's patients.

[0050] Considering that Alzheimer's patients often cannot remember their family members or the people around them, causing great psychological and emotional distress, the present invention enables Alzheimer's patients to improve their memory; the puzzle's methods are then effective.

[0051] On the other hand, constructing a puzzle that improves cognitive abilities according to the present invention can be implemented in various ways.

[0052] In particular, a puzzle that improves cognitive abilities and allows a user to match a person's face to a name can be implemented in various forms. Hereinafter, let us reference Figures 2 and 3.

[0053] Figure 2 is a diagram illustrating the configuration of a puzzle that improves cognitive abilities according to a preferred embodiment of the present invention. Figure 3 is a puzzle that improves cognitive abilities according to a preferred embodiment of the present invention, and is an illustration of another configuration of this invention.

[0054] As shown in Figure 2, the configuration of a puzzle that improves cognitive abilities according to a preferred embodiment of the present invention is constructed by forming a plurality of puzzle pieces using an input picture.

[0055] Then, for every person represented in the picture, their names are displayed, and a puzzle piece is formed so that the person and the displayed name are separated.

[0056] Through this, after matching the puzzle piece of the person's face, marked as "000," the puzzle piece is put together only by finding and matching the corresponding puzzle piece called "000," which refers to the person's name.

[0057] In Figures 2 and 3, the shape of the puzzle piece is shown as a square or unequal piece for convenience, but it is obvious that the puzzle pieces can be formed using various shapes.

[0058] In addition, as illustrated in Figure 3, it gets easier to recognize a person's face and name in daily life by putting together the corresponding puzzle pieces.

[0059] In the example of Figure 3, if the name of the person in the picture is "Sydney," a puzzle is created so that the first letter, "S," is a part of both the face and the name, and forms one complete puzzle piece.

[0060] The puzzle solver then gets a hint that the person has a name starting with "S" and can remember the person's name more quickly.

[0061] This method can be implemented not only in the case of a single person but utilizing a plurality of people; as described above, the size or shape of the puzzle, the number of puzzle pieces, and the shape of each puzzle piece can be implemented under various conditions and can be formed in a variety of ways.

[0062] The formation of the puzzle is not limited to portrait pictures but allows for the use of images that will solidify memories for the puzzle solver (such as specific places, animals, events, etc.) and then displays the contents of the memories visually.

[0063] For example, by using photos of Hawaii, a honeymoon destination, matching the word "Hawaii" or "honeymoon" while forming the puzzle can improve cognitive abilities while simultaneously helping Alzheimer's patients recall memories.

[0064] Additionally, the formation or production of such puzzles and the use of puzzles are not limited to Alzheimer's patients but are also puzzles that allow users to incorporate personal photography into their recreational projects.

[0065] Therefore, according to the present invention, this puzzle helps to improve cognitive abilities, is particularly helpful for patients with diseases such as Alzheimer's, can be enjoyed by people of all ages and genders, helps recall past memories, and can also be used recreationally.

[0066] As it is helpful for Alzheimer's patients to maintain their memories, particularly their facial and name recognition skills, the composition of these puzzles are personalized.

[0068] The preferred embodiment of the present invention described above is disclosed for illustrative purposes, while various modifications, changes, and additions can be made to with the intent and scope of the present invention in mind. Such modifications, changes, and additions should be considered to fall within the scope of the following claims.

Claim Scope:

Claim 1:

To produce a puzzle that improves cognitive abilities, manufacturers will need to receive a picture and specific information about the picture, including the names and information of the people represented. Matching and displaying the names of people's faces in the picture will be performed according to the input information. Manufacturers will then form a puzzle that separates the matched faces and names. Finally, manufacturers will need to output the finished puzzle.

Claim 2:

According to Claim 1, when matching and displaying the names of the faces of people in the picture according to the input information, facial recognition processes may be utilized.

Claim 3:

According to Claim 1, forming a puzzle where matched faces and names are separated, will result in parts of names being broken up into separate pieces of the puzzle.

Claim 4:

According to Claim 1, a method of manufacturing this puzzle may take place by utilizing the program of a computing device.

Claim 5:
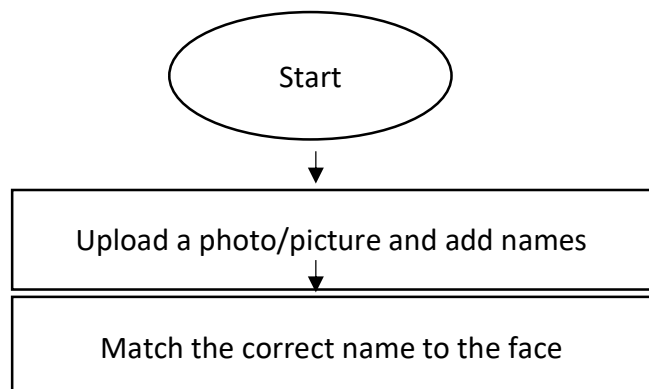A puzzle will be manufactured by the methods of Claims 1 to 4.

Summary:

The manufacturing methods for a puzzle that improves cognitive abilities are disclosed. According to a preferred embodiment of the present invention, the information from a submitted picture is to be made into a puzzle with the names and information of the people in the picture as the input information. The names and faces are then matched and displayed according to the input. Finally, the puzzle is formed so that the matched faces and names are separated, and the formed puzzle is the output.

According to the present invention, puzzles that can be easily accessed and utilized by people of all ages and genders can improve cognitive abilities, especially for patients suffering from diseases such as Alzheimer's. By recalling the faces and names of their family members or people around them, the desired invention has the potential to help maintain memory and cognition.
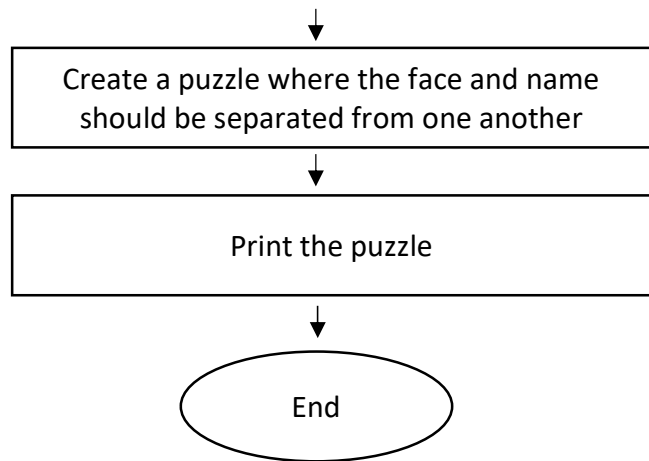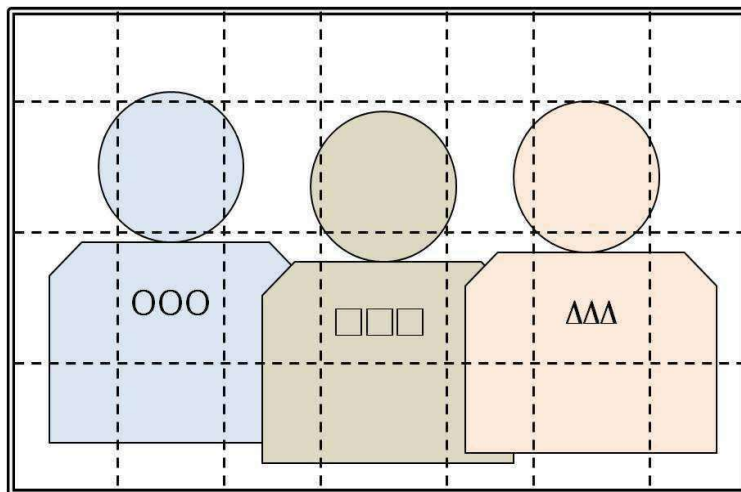
Representative diagrams:
Figure 1:

Create a puzzle where the face and name
should be separated from one another

Print the puzzle

End

Figure 2:

Figure 3:

S y d n e y