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Ready-to-Use English Lessons by Sean Banville

Scientists say they can read dreams

8th April, 2013

http://www.breakingnewsenglish.com/1304/130408-dreams.html

Contents

THE ARTICLE

From http://www.BreakingNewsEnglish.com/1304/130408-dreams.html

Japanese scientists say they have found a way to "read" people's dreams. Researchers at the ATR Computational Neuroscience Laboratories used magnetic resonance imaging (MRI) for what they say is, "the world's first decoding" of night-time visions. Their research is published in the journal "Science". The researchers wrote: "Visual imagery during sleep has long been a topic of persistent speculation, but its private nature has hampered objective analysis. Here, we present a neural decoding approach in which machine learning models predict the contents of visual imagery during sleep." They were able to predict what images their volunteers had seen with a 60 per cent accuracy rate.

The research is a part of a wider programme aimed at studying the brain. It hopes to unlock the secrets of the unconscious mind to help the disabled move artificial limbs using brain activity. It could also help those with dementia and other neurological conditions. A spokesperson said: "Our expectations from the dream study are quite high, but we are also looking carefully at the ethical aspects of the technology, which may allow a third person to look at somebody else's thoughts." Head researcher Yukiyasu Kamitani said, "dreams have fascinated people since ancient times, but their function and meaning has remained closed". He believes his research is, "a key step towards reading dreams more precisely".

Sources: http://www.**ibtimes**.co.uk/articles/454252/20130406/japan-scientists-read-dreams-brain-scan-mri.htm
http://www.**sciencemag**.org/content/early/2013/04/03/science.1234330
http://www.**japantimes**.co.jp/news/2013/04/05/national/kyoto-scientists-read-dreams/#.UWD0_xnqPc8

WARM-UPS

1. DREAMS: Students walk around the class and talk to other students about dreams. Change partners often and share your findings.

2. CHAT: In pairs / groups, decide which of these topics or words from the article are most interesting and which are most boring.

> *scientists / reading dreams / research / journal / speculation / predict / volunteers / research / unlock secrets / the unconscious mind / expectations / ancient times*

Have a chat about the topics you liked. Change topics and partners frequently.

3. NIGHT-TIME VISIONS: What do dreams mean? Complete this table with your partner(s). Change partners often and share what you wrote.

Dreams about...	Meaning
falling	
flying	
being naked in public	
being chased	
knowing famous people	
missing a flight	

4. READING MINDS: Students A **strongly** believe being able to read other people's minds is a good thing; Students B **strongly** believe it's very dangerous. Change partners again and talk about your conversations.

5. READING OTHER'S THOUGHTS: Rank these and share your rankings with your partner. Put the ones you want to know most at the top. Change partners often.

- their past relationships
- their feelings about you
- their biggest secrets
- their politics
- the future
- their fears
- their secret desires
- their level of honesty

6. SLEEP: Spend one minute writing down all of the different words you associate with the word 'sleep'. Share your words with your partner(s) and talk about them. Together, put the words into different categories.

BEFORE READING / LISTENING

From http://www.BreakingNewsEnglish.com/1304/130408-dreams.html

1. TRUE / FALSE: Read the headline. Guess if a-h below are true (T) or false (F).

a. Scientists used CAT (Computer Axial Tomography) to read dreams. T / F
b. The scientists say their research into decoding dreams is a world first. T / F
c. Scientists said the private nature of dreams makes research difficult. T / F
d. The researchers say their technology is less than 50% accurate. T / F
e. The research is aimed at helping the disabled be more mobile. T / F
f. Scientists say the research can't help those with neurological problems. T / F
g. A spokesperson said they must look into the ethics of reading dreams. T / F
h. A researcher said wanting to understand dreams is a newish thing. T / F

2. SYNONYM MATCH: Match the following synonyms from the article.

1.	persistent	a.	slowed down
2	hampered	b.	correctness
3.	objective	c.	interested
4.	predict	d.	synthetic
5.	accuracy	e.	constant
6.	unconscious	f.	forecast
7.	artificial	g.	moral
8.	conditions	h.	sleeping
9.	ethical	i.	unbiased
10.	fascinated	j.	illnesses

3. PHRASE MATCH: (Sometimes more than one choice is possible.)

1.	magnetic resonance	a.	analysis
2	the world's first decoding	b.	aspects
3.	a topic of persistent	c.	at studying the brain
4.	objective	d.	imaging
5.	a 60 per cent	e.	limbs
6.	a wider programme aimed	f.	of night-time visions
7.	artificial	g.	since ancient times
8.	dementia and other neurological	h.	speculation
9.	looking carefully at the ethical	i.	conditions
10.	dreams have fascinated people	j.	accuracy rate

GAP FILL

From http://www.BreakingNewsEnglish.com/1304/130408-dreams.html

Japanese scientists say they have found a (1) _____ to "read" people's dreams. Researchers at the ATR Computational Neuroscience Laboratories used (2) _____ resonance imaging (MRI) for what they say is, "the world's first (3) _____ " of night-time visions. Their research is published in the (4) _____ "Science". The researchers wrote: "Visual imagery during sleep has long been a topic of (5) _____ speculation, but its private nature has hampered objective analysis. Here, we present a neural decoding (6) _____ in which machine learning models predict the contents of visual imagery (7) _____ sleep." They were able to predict what images their volunteers had seen with a 60 per cent accuracy (8) _____.

journal

rate

magnetic

approach

way

during

decoding

persistent

The research is a part of a (9) _____ programme aimed at studying the brain. It hopes to (10) _____ the secrets of the unconscious mind to help the disabled move artificial (11) _____ using brain activity. It could also help those with dementia and other neurological (12) _____. A spokesperson said: "Our expectations from the dream study are quite (13) _____, but we are also looking carefully at the ethical aspects of the technology, which may allow a (14) _____ person to look at somebody else's thoughts." Head researcher Yukiyasu Kamitani said, "dreams have (15) _____ people since ancient times, but their function and meaning has remained closed". He believes his research is, "a key (16) _____ towards reading dreams more precisely".

conditions

fascinated

step

unlock

high

wider

limbs

third

LISTENING – Guess the answers. Listen to check

From http://www.BreakingNewsEnglish.com/1304/130408-dreams.html

1) the world's first decoding of night-_____
   a. timed visions
   b. times visions
   c. time vision
   d. time visions

2) Visual imagery during sleep has long been a topic _____
   a. of persistently speculation
   b. of persistence speculations
   c. of persistent speculation
   d. of persistent speculations

3) its private nature has hampered _____
   a. objectively analysis
   b. objective analytics
   c. objectives analysis
   d. objective analysis

4) models predict the contents _____ during sleep
   a. of visual imagery
   b. for visual images
   c. of visualised imagery
   d. of visual images

5) They were able to _____ their volunteers had seen
   a. predict which images
   b. predict what images
   c. predict those images
   d. predict the images

6) The research is a part of a wider programme _____ the brain
   a. aimed at studying
   b. aimed that studying
   c. aimed what studying
   d. aimed for studying

7) help the disabled _____ using brain activity
   a. move artificially limbs
   b. move artificial limb
   c. move artificially limb
   d. move artificial limbs

8) It could also help those with _____ neurological conditions
   a. dementia and others
   b. dementia and another
   c. dementia and other
   d. dementia and the other

9) we are also looking carefully _____ of the technology
   a. at the ethical aspects
   b. at the ethically aspects
   c. at the ethical aspect
   d. at the ethically aspect

10) He believes his research _____ towards reading dreams more precisely
   a. is a key step
   b. is a key stage
   c. is a key slip
   d. is a key stepping

LISTENING – Listen and fill in the gaps

From http://www.BreakingNewsEnglish.com/1304/130408-dreams.html

Japanese scientists say they (1) _____ "read" people's dreams. Researchers at the ATR Computational Neuroscience Laboratories used (2) _____ (MRI) for what they say is, "the world's first decoding" of night-time visions. (3) _____ in the journal "Science". The researchers wrote: "Visual imagery during sleep has long been (4) _____ speculation, but its private nature has hampered objective analysis. Here, we present a neural decoding approach in which machine learning models (5) _____ visual imagery during sleep." They were (6) _____ images their volunteers had seen with a 60 per cent accuracy rate.

The research is a (7) _____ aimed at studying the brain. It hopes to unlock the secrets (8) _____ to help the disabled (9) _____ brain activity. It could also help those with dementia and other neurological conditions. A spokesperson said: "Our (10) _____ dream study are quite high, but we are also looking carefully (11) _____ the technology, which may allow a third person to look at somebody else's thoughts." Head researcher Yukiyasu Kamitani said, "dreams have fascinated people since ancient times, but their function and (12) _____". He believes his research is, "a key step towards reading dreams more precisely".

COMPREHENSION QUESTIONS

From http://www.BreakingNewsEnglish.com/1304/130408-dreams.html

1. What technology did the scientists use to "read" people's dreams?

2. What did the scientists say was a world first?

3. What have visions during sleep been a topic of for a long time?

4. What has always got in the way of "objective analysis"?

5. How precisely were researchers able to predict images volunteers saw?

6. How do scientists hope to help disabled people?

7. Who else could the research help besides the disabled?

8. How hopeful are researchers their research will bear fruit?

9. What considerations are the researchers looking into?

10. For how long did a researcher say dreams have fascinated us?

MULTIPLE CHOICE - QUIZ

From http://www.BreakingNewsEnglish.com/1304/130408-dreams.html

1. What technology did the scientists use to "read" people's dreams?
   a) CAT
   b) X-ray
   c) MRI
   d) A&E

2. What did the scientists say was a world first?
   a) the decoding of night-time visions
   b) the use of magnets in looking at dreams
   c) putting someone's dreams on a projector
   d) controlling someone's dreams

3. What have visions during sleep been a topic of for a long time?
   a) constant conjecture and theories
   b) medicine
   c) sleeplessness
   d) being private and objective in nature

4. What has always got in the way of "objective analysis"?
   a) neuroscientists
   b) dreams being so private
   c) technology
   d) ethics

5. How precisely were researchers able to predict images volunteers saw?
   a) about 16% of the time
   b) with considerable precision
   c) it was rather hit and miss
   d) with 60% accuracy

6. How do scientists hope to help disabled people?
   a) let them see their dreams
   b) by using prosthetic arms and legs
   c) provide them with jobs as dream testers
   d) clear their unconscious minds

7. Who else could the research help besides the disabled?
   a) those suffering from brain-related diseases
   b) psychologists / psychoanalysts
   c) writers
   d) the government

8. How hopeful are researchers their research will bear fruit?
   a) it's too early to say
   b) not very
   c) they have high expectations
   d) they are 100% sure

9. What considerations are the researchers looking into?
   a) logical
   b) medical
   c) clinical
   d) ethical

10. For how long did a researcher say dreams have fascinated us?
    a) tens of thousands of years
    b) a billion years
    c) centuries
    d) since Freud started writing

ROLE PLAY

From http://www.BreakingNewsEnglish.com/1304/130408-dreams.html

Role A – Pro-dream reader

You think the ability to read dreams and thoughts is fantastic. Tell the others three reasons why. The technology could cure all mental illnesses. It could cure the world's mental health and we would all love each other. You think most people would love to look back at their dreams.

Role B – Anti-dream reader

You think the ability to read dreams and thoughts is very dangerous. Tell the others three reasons why. You think it is ethically unsound to read dreams and thoughts. There is a reason why we cannot read dreams. You think this ability would change humans too much.

Role C – Troubled relationship person

You are having trouble with your partner. You think (s)he is seeing someone else. You are sure that if you read his/her dreams, you could find out the answer. You think dream-reading is a fantastic way of keeping marriages and relationships together.

Role D – Person X

You are incredibly rich and powerful and want to be a dictator. You want to invest in this dream-reading technology to control everyone in your country. Support everything the pro-dream reader says. Strongly disagree with the other two. Tell everyone nothing gets in the way of science.

AFTER READING / LISTENING

From http://www.BreakingNewsEnglish.com/1304/130408-dreams.html

1. WORD SEARCH: Look in your dictionary / computer to find collocates, other meanings, information, synonyms … for the words 'read' and 'dream'.

read	**dream**

- Share your findings with your partners.
- Make questions using the words you found.
- Ask your partner / group your questions.

2. ARTICLE QUESTIONS: Look back at the article and write down some questions you would like to ask the class about the text.

- Share your questions with other classmates / groups.
- Ask your partner / group your questions.

3. GAP FILL: In pairs / groups, compare your answers to this exercise. Check your answers. Talk about the words from the activity. Were they new, interesting, worth learning…?

4. VOCABULARY: Circle any words you do not understand. In groups, pool unknown words and use dictionaries to find their meanings.

5. TEST EACH OTHER: Look at the words below. With your partner, try to recall how they were used in the text:

• way • first • topic • private • present • rate	• wider • limbs • high • third • times • key

DREAMS SURVEY

From http://www.BreakingNewsEnglish.com/1304/130408-dreams.html

Write five GOOD questions about dreams in the table. Do this in pairs. Each student must write the questions on his / her own paper.
When you have finished, interview other students. Write down their answers.

	STUDENT 1 _____	STUDENT 2 _____	STUDENT 3 _____
Q.1.			
Q.2.			
Q.3.			
Q.4.			
Q.5.			

- Now return to your original partner and share and talk about what you found out. Change partners often.
- Make mini-presentations to other groups on your findings.

DREAMS DISCUSSION

STUDENT A's QUESTIONS (Do not show these to student B)

a) What did you think when you read the headline?

b) What springs to mind when you hear the word 'dream'?

c) What kinds of dreams do you have?

d) Would you like to be able to read your dreams?

e) Do you think this is a good use of technology?

f) Would you like to be able to read everything in someone's mind?

g) Would you like to volunteer for this research?

h) How interested are you in the meaning of dreams?

i) Has anything you've dreamt about come true?

j) Do you ever dream in English?

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DREAMS DISCUSSION

STUDENT B's QUESTIONS (Do not show these to student A)

a) Did you like reading this article? Why/not?

b) Do you think scientists should unlock all the brain's secrets?

c) Could dream- / mind-reading technology be dangerous?

d) Would you buy technology that let you save dreams on your computer?

e) Whose mind or dreams would you like to read?

f) Could this technology cure the world's mental health?

g) What are the ethical issues surrounding this technology?

h) Who would you allow to read your deepest thoughts?

i) How could this technology improve people's lives?

j) What questions would you like to ask the scientists?

DISCUSSION (Write your own questions)

STUDENT A's QUESTIONS (Do not show these to student B)

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

DISCUSSION (Write your own questions)

STUDENT B's QUESTIONS (Do not show these to student A)

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

MULTIPLE CHOICE - LANGUAGE

From http://www.BreakingNewsEnglish.com/1304/130408-dreams.html

Japanese scientists say they have found a way to "read" people's dreams. Researchers at the ATR Computational Neuroscience Laboratories used (1) _____ resonance imaging (MRI) for what they say is, "the world's first (2) _____ " of night-time visions. Their research is published in the (3) _____ "Science". The researchers wrote: "Visual imagery during sleep has (4) _____ been a topic of persistent speculation, but its private nature has hampered objective analysis. Here, we present a neural decoding approach (5) _____ which machine learning models predict the contents of visual imagery during sleep." They were able to predict what images their volunteers had seen with a 60 per cent (6) _____ rate.

The research is a part of a (7) _____ programme aimed at studying the brain. It hopes to unlock the secrets of the unconscious mind to help (8) _____ disabled move artificial limbs using brain activity. It could also help those with dementia and other neurological conditions. A spokesperson said: "Our expectations from the dream study are quite (9) _____, but we are also looking carefully at the (10) _____ aspects of the technology, which may allow a third person to look at somebody else's thoughts." Head researcher Yukiyasu Kamitani said, "dreams have fascinated people (11) _____ ancient times, but their function and meaning has remained closed". He believes his research is, "a key step towards reading dreams more (12) _____ ".

Put the correct words from the table below in the above article.

1.	(a)	magnet	(b)	magnetism	(c)	magnets	(d)	magnetic
2.	(a)	encoding	(b)	coding	(c)	recoding	(d)	decoding
3.	(a)	rag	(b)	journal	(c)	diary	(d)	novella
4.	(a)	wide	(b)	soon	(c)	long	(d)	very
5.	(a)	on	(b)	at	(c)	in	(d)	so
6.	(a)	accuracy	(b)	primacy	(c)	privacy	(d)	acidity
7.	(a)	higher	(b)	wider	(c)	stronger	(d)	taller
8.	(a)	the	(b)	those	(c)	some	(d)	much
9.	(a)	increase	(b)	high	(c)	tall	(d)	sky
10.	(a)	mythical	(b)	ethereal	(c)	ethical	(d)	mystical
11.	(a)	for	(b)	via	(c)	since	(d)	by
12.	(a)	précis	(b)	precision	(c)	precise	(d)	precisely

SPELLING

From http://www.BreakingNewsEnglish.com/1304/130408-dreams.html

Paragraph 1

1. dnocgdie of night-time visions
2. published in the ljaunor "Science"
3. a topic of persistent eupcnslaito
4. hampered objective islaysna
5. images their troseluenv had seen
6. a 60 per cent rcccayua rate

Paragraph 2

7. the noinoucussc mind
8. iiaifatclr limbs
9. other igeonarloclu conditions
10. the halitec aspects
11. dreams have tedaancisf people
12. reading dreams more eelspyirc

PUT THE TEXT BACK TOGETHER

From http://www.BreakingNewsEnglish.com/1304/130408-dreams.html

( ) activity. It could also help those with dementia and other neurological conditions. A spokesperson said: "Our

( ) The research is a part of a wider programme aimed at studying the brain. It hopes to

( ) "Science". The researchers wrote: "Visual imagery during sleep has long been a topic of persistent

( ) speculation, but its private nature has hampered objective analysis. Here, we present a neural

( ) sleep." They were able to predict what images their volunteers had seen with a 60 per cent accuracy rate.

( ) decoding approach in which machine learning models predict the contents of visual imagery during

( ) unlock the secrets of the unconscious mind to help the disabled move artificial limbs using brain

( ) first decoding" of night-time visions. Their research is published in the journal

( ) expectations from the dream study are quite high, but we are also looking carefully at the ethical

(***1***) Japanese scientists say they have found a way to "read" people's dreams. Researchers

( ) aspects of the technology, which may allow a third person to look at somebody else's

( ) thoughts." Head researcher Yukiyasu Kamitani said, "dreams have fascinated people since ancient

( ) times, but their function and meaning has remained closed". He believes his research is, "a key step towards reading dreams more precisely".

( ) at the ATR Computational Neuroscience Laboratories used magnetic resonance imaging (MRI) for what they say is, "the world's

PUT THE WORDS IN THE RIGHT ORDER

From http://www.BreakingNewsEnglish.com/1304/130408-dreams.html

1. dreams have way people's They a read found to.

2. night visions world's of time The decoding - first.

3. topic speculation has a persistent Sleep been of long.

4. contents sleep of visual Predict imagery the during.

5. images had Able what volunteers predict their seen to.

6. wider programme aimed at studying the brain Part of a.

7. hopes to unlock the secrets of the unconscious mind It.

8. dementia with those help also could It.

9. We looking the also at aspects are carefully ethical.

10. more step precisely towards reading A dreams key.

CIRCLE THE CORRECT WORD (20 PAIRS)

From http://www.BreakingNewsEnglish.com/1304/130408-dreams.html

Japanese scientists say they have found a way to "read" people's *dream / dreams*. Researchers at the ATR Computational Neuroscience Laboratories used *magnetic / magnetism* resonance imaging (MRI) for what they say is, "the world's first *encoding / decoding*" of night-time visions. Their research is *published / publishing* in the journal "Science". The researchers wrote: "Visual imagery *during / between* sleep has *long / lengthy* been a topic of persistent speculation, but its *private / public* nature has hampered objective analysis. Here, we *present / presentation* a neural decoding approach in which machine learning models predict the contents of visual imagery during sleep." They were able to *predict / contradict* what images their volunteers had seen with a 60 per cent accuracy *ratio / rate*.

The research is a part of a *wilder / wider* programme aimed at studying the brain. It hopes to unlock the *secrets / secrecy* of the unconscious mind to help the disabled *move / more* artificial *limbs / limps* using brain activity. It could also help those with dementia and *other / others* neurological conditions. A spokesperson said: "Our expectations from the dream study are quite *tall / high*, but we are also looking carefully at the *methodical / ethical* aspects of the technology, which may allow a *third / fourth* person to look at somebody else's *thoughts / thought*." Head researcher Yukiyasu Kamitani said, "dreams have fascinated people since ancient times, but their function and meaning has remained closed". He believes his research is, "a key step towards reading dreams more *precision / precisely*".

Talk about the connection between each pair of words in italics, and why the correct word is correct.

INSERT THE VOWELS (a, e, i, o, u)

From http://www.BreakingNewsEnglish.com/1304/130408-dreams.html

J_p_n_s_ sc__nt_sts s_y th_y h_v_ f__nd _ w_y t_ "r__d" p__pl_'s dr__ms. R_s__rch_rs _t th_ _TR C_mp_t_t__n_l N__r_sc__nc_ L_b_r_t_r__s _s_d m_gn_t_c r_s_n_nc_ _m_g_ng (MR_) f_r wh_t th_y s_y _s, "th_ w_rld's f_rst d_c_d_ng" _f n_ght-t_m_ v_s__ns. Th__r r_s__rch _s p_bl_sh_d _n th_ j__rn_l "Sc__nc_". Th_ r_s__rch_rs wr_t_: "V_s__l _m_g_ry d_r_ng sl__p h_s l_ng b__n _ t_p_c _f p_rs_st_nt sp_c_l_t__n, b_t _ts pr_v_t_ n_t_r_ h_s h_mp_r_d _bj_ct_v_ _n_lys_s. H_r_, w_ pr_s_nt _ n__r_l d_c_d_ng _ppr__ch _n wh_ch m_ch_n_ l__rn_ng m_d_ls pr_d_ct th_ c_nt_nts _f v_s__l _m_g_ry d_r_ng sl__p." Th_y w_r_ _bl_ t_ pr_d_ct wh_t _m_g_s th__r v_l_nt__rs h_d s__n w_th _ 60 p_r c_nt _cc_r_cy r_t_.

Th_ r_s__rch _s _ p_rt _f _ w_d_r pr_gr_mm_ __m_d _t st_dy_ng th_ br__n. _t h_p_s t_ _nl_ck th_ s_cr_ts _f th_ _nc_nsc___s m_nd t_ h_lp th_ d_s_bl_d m_v_ _rt_f_c__l l_mbs _s_ng br__n _ct_v_ty. _t c__ld _ls_ h_lp th_s_ w_th d_m_nt__ _nd _th_r n__r_l_g_c_l c_nd_t__ns. _ sp_k_sp_rs_n s__d: "__r _xp_ct_t__ns fr_m th_ dr__m st_dy _r_ q__t_ h_gh, b_t w_ _r_ _ls_ l__k_ng c_r_f_lly _t th_ _th_c_l _sp_cts _f th_ t_chn_l_gy, wh_ch m_y _ll_w _ th_rd p_rs_n t_ l__k _t s_m_b_dy _ls_'s th__ghts." H__d r_s__rch_r Y_k_y_s_ K_m_t_n_ s__d, "dr__ms h_v_ f_sc_n_t_d p__pl_ s_nc_ _nc__nt t_m_s, b_t th__r f_nct__n _nd m__n_ng h_s r_m__n_d cl_s_d". H_ b_l__v_s h_s r_s__rch _s, "_ k_y st_p t_w_rds r__d_ng dr__ms m_r_ pr_c_s_ly".

PUNCTUATE THE TEXT AND ADD CAPITALS

From http://www.BreakingNewsEnglish.com/1304/130408-dreams.html

japanese scientists say they have found a way to "read" people's dreams researchers at the atr computational neuroscience laboratories used magnetic resonance imaging (mri) for what they say is "the world's first decoding" of night-time visions their research is published in the journal "science" the researchers wrote "visual imagery during sleep has long been a topic of persistent speculation but its private nature has hampered objective analysis here we present a neural decoding approach in which machine learning models predict the contents of visual imagery during sleep" they were able to predict what images their volunteers had seen with a 60 per cent accuracy rate

the research is a part of a wider programme aimed at studying the brain it hopes to unlock the secrets of the unconscious mind to help the disabled move artificial limbs using brain activity it could also help those with dementia and other neurological conditions a spokesperson said "our expectations from the dream study are quite high but we are also looking carefully at the ethical aspects of the technology which may allow a third person to look at somebody else's thoughts" head researcher yukiyasu kamitani said "dreams have fascinated people since ancient times but their function and meaning has remained closed" he believes his research is "a key step towards reading dreams more precisely"

PUT A SLASH (/) WHERE THE SPACES ARE

From http://www.BreakingNewsEnglish.com/1304/130408-dreams.html

Japanesescientistssaytheyhavefoundawayto"read"people'sdreams.Researchers attheATRComputationalNeuroscienceLaboratoriesusedmagneticresonance imaging(MRI)forwhattheysayis,"theworld'sfirstdecoding"ofnight-timevisions. Theirresearchispublishedinthejournal"Science".Theresearcherswrote:"Visual imageryduringsleephaslongbeenatopicofpersistentspeculation,butitsprivate naturehashamperedobjectiveanalysis.Here,wepresentaneuraldecoding approachinwhichmachinelearningmodelspredictthecontentsofvisualimagery duringsleep."Theywereabletopredictwhatimagestheirvolunteershadseenwith a60percentaccuracyrate.Theresearchisapartofawiderprogrammeaimedat studyingthebrain.Ithopestounlockthesecretsoftheunconsciousmindtohelp thedisabledmoveartificiallimbsusingbrainactivity.Itcouldalsohelpthosewith dementiaandotherneurologicalconditions.Aspokespersonsaid:"Our expectationsfromthedreamstudyarequitehigh,butwearealsolookingcarefully attheethicalaspectsofthetechnology,whichmayallowathirdpersontolookat somebodyelse'sthoughts."HeadresearcherYukiyasuKamitanisaid,"dreams havefascinatedpeoplesinceancienttimes,buttheirfunctionandmeaninghas remainedclosed".Hebelieveshisresearchis,"akeysteptowardsreadingdreams moreprecisely".

FREE WRITING

From http://www.BreakingNewsEnglish.com/1304/130408-dreams.html

Write about **dreams** for 10 minutes. Comment on your partner's paper.

ACADEMIC WRITING

From http://www.BreakingNewsEnglish.com/1304/130408-dreams.html

Looking at other people's dreams is unethical and should not be pursued by scientists. Discuss.

HOMEWORK

1. VOCABULARY EXTENSION: Choose several of the words from the text. Use a dictionary or Google's search field (or another search engine) to build up more associations / collocations of each word.

2. INTERNET: Search the Internet and find out more about dreams. Share what you discover with your partner(s) in the next lesson.

3. DREAMS: Make a poster about dreams and what they mean. Show your work to your classmates in the next lesson. Did you all have similar things?

4. ETHICS: Write a magazine article about the decoding of people's dreams. Include imaginary interviews with people who are for and against it.

Read what you wrote to your classmates in the next lesson. Write down any new words and expressions you hear from your partner(s).

5. WHAT HAPPENED NEXT? Write a newspaper article about the next stage in this news story. Read what you wrote to your classmates in the next lesson. Give each other feedback on your articles.

6. LETTER: Write a letter to an expert on ethics. Ask him/her three questions about looking at other people's dreams. Give him/her three of your opinions on this. Read your letter to your partner(s) in your next lesson. Your partner(s) will answer your questions.

ANSWERS

TRUE / FALSE (p.4)

a F b T c T d F e T f F g T h F

SYNONYM MATCH (p.4)

1.	persistent	a.	constant
2	hampered	b.	slowed down
3.	objective	c.	unbiased
4.	predict	d.	forecast
5.	accuracy	e.	correctness
6.	unconscious	f.	sleeping
7.	artificial	g.	synthetic
8.	conditions	h.	illnesses
9.	ethical	i.	moral
10.	fascinated	j.	interested

COMPREHENSION QUESTIONS (p.8)

1. Magnetic resonance imaging (MRI)
2. The decoding of night-time visions
3. Persistent speculation
4. The private nature of dreams
5. With a 60 per cent accuracy rate
6. Allow them to move artificial limbs using brain activity
7. Those with dementia and other neurological conditions
8. Their expectations are high
9. Ethical aspects of the technology
10. Since ancient times

MULTIPLE CHOICE - QUIZ (p.9)

1. c 2. a 3. a 4. b 5. d 6. b 7. a 8. c 9. d 10. a

ALL OTHER EXERCISES

Please check for yourself by looking at the Article on page 2.
(It's good for your English ;-)