Englist.me

Vocabulary Builder Reference from...

Greg Gage: How to control someone else's arm with

your brain | TED Talk

https://www.ted.com/talks/greg_gage_how_to_control

_someone_else_s_arm_with_your_brain



All Words

IMPORTANT

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Session 1: Word List

brain

 the organ inside the head that is responsible for one's movement, thought, memory, and feeling

synonym: intellect, mind, encephalon

(1) basic **brain** function, (2) permanent **brain** damage X-rays revealed a small tumor in his **brain**.

amazing

adj. extremely surprising, especially in a way that you like or admire

synonym: exceptional, extraordinary, wonderful

(1) **amazing** advances, (2) the most **amazing** feeling The golfer recorded an **amazing** distance.

complexity

 the state or quality of being complicated or intricate and difficult to understand

synonym: intricacy, sophistication, elaboration

(1) cognitive complexity, (2) complexity theoryThe project's complexity made it difficult for the team to

complete it on time.

fascinate

v. to attract and hold the attention of someone deeply and irresistibly

synonym: captivate, intrigue, mesmerize

(1) fascinate the public, (2) fascinate the young

The magic tricks **fascinated** the children.

neuroscience

- *n.* the scientific study of the function, structure, and disorder of the brain and the nervous system
- (1) the branch of **neuroscience**, (2) a theoretical concept in **neuroscience**

Our university is famous for its professors, who are well-versed in behavioral **neuroscience**.

equip

v. to provide a person or a place with the things that are needed for a particular purpose or activity

synonym: prepare, furnish, provide

(1) **equip** an army, (2) **equip** our children with some special skills

The construction company **equipped** the building with an earthquake-resistant device.

institutionalize

v. to establish or make something a part of an institution (= a place such as a university, hospital, etc.)

synonym: formalize, establish, regularize

(1) **institutionalize** a system, (2) **institutionalize** customary laws

The new policy aims to **institutionalize** the use of renewable energy sources.

dedicate

v. to give all of your energy, time, etc., entirely to a specific person, activity, or cause; to set apart for a particular purpose or use

synonym: consecrate, devote, commit

(1) **dedicate** a few hours, (2) **dedicate** a chapter to the subject

He dedicated his life to helping others.

graduate

 a person who has a first degree from university or college; (verb) to complete the first course of university or college and get a degree

synonym: alumna, alum, grad

(1) graduate degree program,(2) honor graduateMany employers hire graduate trainees to train as managers.

sham

 something that is not as good or true as it seems to be and is intended to deceive people; a person who pretends to be something they are not

synonym: bogus, counterfeit, fraudulent

(1) a **sham** battle, (2) turn out to be all **sham** The data he prepared was completely **sham**.

neurological

adj. of or relating to the science of neurology or the nervous system

synonym: nervous, neural, brain-related

(1) fever with **neurological** signs, (2) **neurological** symptoms

The patient was diagnosed with a **neurological** disorder affecting their motor skills.

disorder

 an untidy state or a lack of organization; a physical condition or illness that causes problems with how a section of the body or brain functions

synonym: chaos, disturbance, disease

(1) the files are in complete **disorder**, (2) people with bipolar **disorder**

The doctor prescribed some medicine for the mental **disorder**.

disease

 a disorder or illness that affects the body or mind, often characterized by specific symptoms or abnormal functioning of organs or systems

synonym: illness, ailment, affliction

(1) disease prevention, (2) disease control

The doctor diagnosed him with a rare **disease** that had no known cure.

educe

v. to bring out or develop something, especially information or ideas, from a source

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synonym: extract, deduce, derive

(1) educe information, (2) educe meaning

Through careful analysis, the detective could d **educe** the truth from the witness.

process

n. a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products

synonym: procedure, method, system

- (1) **process** improvement, (2) decision-making **process**The **process** for applying for a visa can be lengthy and complicated.
- a workplace for the conduct of scientific research; a laboratory

synonym: workshop, laboratory, research chamber

(1) **lab** instrument, (2) medical **lab**

The Prime Minister will pay a courtesy visit to the Nobel laureate's **lab**.

decide

lab

- v. to make up someone's mind about something; to come to a conclusion or judgment after considering options synonym: choose, determine, settle
- (1) **decide** a question, (2) **decide** on a course of action She couldn't **decide** whether to order the pizza or the pasta for dinner.

affordable

adj. not expensive and able to paysynonym: cheap, reasonable, inexpensive

(1) **affordable** housing, (2) **affordable** solution

The automaker has been providing **affordable** car financing options since last year.

participate

v. to take part in something

synonym: take part, partake, enter

(1) **participate** fully in conversation, (2) **participate** in the program

The majority of students actively **participated** in the college's intramural sports program.

discovery

 the act or process of finding information, a place, or an object, or learning about something that was previously not known

synonym: finding, uncovering, detection

(1) a scientific **discovery**, (2) the great **discovery** of the century

Her research team made an important discovery.

backyard

- n. a whole space behind and belonging to a house synonym: courtyard, garden
- (1) play in the **backyard**, (2) **backyard** barbecue He grows vegetables in his **backyard**.

demonstration

- n. a display or show, often of a particular skill or product, intended to convince or persuade otherssynonym: manifestation, presentation, show
- (1) **demonstration** project, (2) a campus **demonstration** Thousands of people attended the protest **demonstration** against the proposed policy.

volunteer

a person who performs or offers to perform a job or service without being paid for or forced to do

synonym: unpaid worker, draftee, enlistee

(1) seek **volunteers**, (2) my **volunteer** work

The teachers make full use of **volunteer** assistance.

stick

to put something, usually a sharp object, into something; to restrict yourself to doing or using one certain thing and not change; (noun) a thin piece of wood or other material

synonym: pierce, adhere, stay

(1) stick a key in a lock, (2) fire stick

You **stick** a bill in the change machine, and the coins pop out.

roll

v. to move in a particular direction by turning over and over or from side to side

synonym: spin, swirl, wheel

(1) roll a ball, (2) roll down his cheeks

He was exhausted and **rolled** into bed as soon as he got home.

sleeve

- n. a part of a garment that covers all or part of an armsynonym: arm covering, armband
- (1) a wide sleeve, (2) sleeve lengthHe rolled up his sleeves to get ready to work.

electrode

- either of two points or ends of a conductor at which electricity enters or leaves an object, substance, or region
- (1) platinum **electrodes**, (2) **electrode** corrosion It is important to place the **electrodes** in the correct position for accurate electro-cardiogram recording.

neuron

- a cell that is specialized to carry information within the brain and between the brain and other parts of the body
- synonym: nerve cell
- (1) excite the **neurons**, (2) **neuron** cell body

Our body transfers information along each **neuron** using an electrical impulse.

electrical

adj. relating to electricity

an electrical storm, (2) degree in electrical engineering
 Actuators convert electrical pulses into motion.

chemical

adj. relating to or connected with chemistry;

synonym: chemic, synthetic

(1) toxic chemicals, (2) a chemical compound

The firm has grown into a large **chemical** manufacturing.

motor

- n. a device that converts electricity, fuel, etc. into movement and makes a machine, vehicle, etc. worksynonym: actuator, engine, machine
- (1) a **motor** mechanic, (2) DC **motor** control Energy-efficient **motors** are needed to maximize the cruising distance of electric vehicles.

cortex

- n. the outermost layer of an organ, especially the brain
- (1) **cortex** cells, (2) visual **cortex** neuron

The cerebral **cortex** consists of six layers.

corpus

 a collection of texts or documents, usually used in research or analysis

synonym: collection, body, compilation

(1) corpus callous, (2) written corpus

The **corpus** of ancient Greek literature includes many famous works.

callosum

- a large bundle of nerve fibers that connects the two hemispheres of the brain
- (1) removal of the corpus **callosum**, (2) corpus **callosum** fiber

The corpus **callosum** is essential for coordinating the functions of the two hemispheres.

spinal

- adj. of or relating to the spine (= the long bone in the body's back)
- (1) spinal injury, (2) brain and spinal cord

The surgeon carefully confirmed how to remove the tumor to avoid damaging the **spinal** nerves.

cord

 a strong, thick, or thin thread or rope; a piece of plastic-coated wire used to transport electricity to a piece of equipment

synonym: wire, cable, string

(1) spinal **cord**, (2) electrical **cord**

Your spinal **cord** is located deep within your body.

discharge

v. to release or let go of something or someone; to dismiss or terminate an employee or member of an organization; to emit or give off a substance or energy

synonym: release, emit, expel

(1) discharge water, (2) discharge a contract

The hospital will **discharge** the patient as soon as their condition stabilizes.

squeeze

v. to apply pressure from two or more sides; to hold someone or something tightly in your arms, usually with fondness

synonym: compress, crush, clamp

(1) **squeeze** a lemon, (2) **squeeze** a confession

She **squeezed** the toothpaste tube from the middle to get the last bit out.

rumble

v. to make a low, heavy continuous sound

synonym: roar, growl, grumble

(1) **rumble** an order, (2) **rumble** down the dirt track The thunder **rumbled** in the distance.

app

 n. (abbreviation for application) software designed to run on smartphones and other mobile devices or inside a web browser on a PC

synonym: application, software

(1) killer app, (2) cannot log in to the app

The discovery of a critical bug caused the company to delay the **app's** release.

pause

 to take a short break from talking or doing something before continuing

synonym: halt, break, intermit

(1) **pause** a moment, (2) **pause** for a reaction

The man **paused** before opening the door.

nervous

adj. worried and anxious about something; relating to the nerves

synonym: neural, anxious, uneasy

(1) development of the **nervous** system, (2) get **nervous** He suffers from **nervous** breakdowns.

innervate

- v. to supply an organ or part of the body with nerves; to stimulate action
- (1) **innervate** the internal organs, (2) **innervate** a muscle Several types of nerve fiber **innervate** different sensory receptors on the skin.

stimulate

v. to encourage something to develop or become more active; to stir the feelings or emotions

synonym: excite, provoke, arouse

(1) **stimulate** the economy, (2) **stimulate** the nervous system

The book **stimulated** my imagination.

inject

v. to put a liquid such as a drug or other substance into a person's or an animal's body using a needle and syringe (= small tube)

synonym: shoot, infiltrate, insinuate

(1) **inject** under the skin, (2) **inject** a personal opinion into a debate

Let's try to **inject** a bit of enthusiasm into your performance.

hook

 a curved device used for suspending, holding, or pulling something, especially one attached to a surface for hanging things on; a sharp curve or crook

synonym: buckle, pin, curve

(1) a hat **hook**, (2) the curved shape of a **hook** Please hang your towel on a **hook**.

ulna

n. the longer and thinner of the two bones in the forearm, located on the side opposite to the thumb

synonym: radius, bone of the forearm

(1) ulna nerve, (2) fractured ulna

The **ulna** bone is located in the forearm and is crucial in allowing forearm rotation.

interface

 n. (computer science) a program that controls a display for the user and that allows the user to interact with the system; (chemistry) a surface forming a common boundary between two things

synonym: junction, surface, UI

(1) **interface** between gas and liquid, (2) the user **interface** Detergent weakens the surface tension at the **interface** of two liquids.

weird

adj. extraordinary, unexpected, or difficult to explain synonym: bizarre, creepy, peculiar

a weird dress,
 the state of being weird
 my computer has been acting weird recently.

relax

 to become or cause someone to become less active or tense and calmer

synonym: soften, comfort, soothe

relax a series of muscles, (2) relax at home
 The rules were relaxed after the new executive arrived.

physiology

- the branch of the biological sciences dealing with the functioning of organisms
- (1) human **physiology**, (2) **physiology** research **Physiology** is the science of how living things work.

revolution

 a large-scale attempt to overthrow the government of a country, often using violence or war;

synonym: coup, innovation, rebellion

(1) beginning of the industrial **revolution**, (2) a political **revolution**

The revolution by the citizen resulted in a redistribution of wealth.

Session 2: Spelling

1.	demion project	n.	a display or show, often of a particular skill or product, intended to convince or persuade others
2.	fate the young	<i>v</i> .	to attract and hold the attention of someone deeply and irresistibly
3.	the most amg feeling	adj.	extremely surprising, especially in a way that you like or admire
4.	u_a nerve	n.	the longer and thinner of the two bones in the forearm, located on the side opposite to the thumb
5.	stte the nervous system	<i>v</i> .	to encourage something to develop or become more active; to stir the feelings or emotions
6.	spinal cd	n.	a strong, thick, or thin thread or rope; a piece of plastic-coated wire used to transport electricity to a piece of equipment
7.	affle solution	adj.	not expensive and able to pay
8.	killer a_p	n.	(abbreviation for application) software designed to run on smartphones and other mobile devices or inside a web browser on a PC
9.	inte the internal organs	<i>v</i> .	to supply an organ or part of the body with nerves; to stimulate action
10.	sle length	n.	a part of a garment that covers all or part of an arm

ANSWERS: 1. demonstration, 2. fascinate, 3. amazing, 4. ulna, 5. stimulate, 6. cord, 7. affordable, 8. app, 9. innervate, 10. sleeve

13. decision-making pr___s

n. a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products

purpose or use

14. platinum el____des

 n. either of two points or ends of a conductor at which electricity enters or leaves an object, substance, or region

15. I_b instrument

a workplace for the conduct of scientific research; a laboratory

16. re__x a series of muscles

v. to become or cause someone to become less active or tense and calmer

17. de te a few hours

v. to give all of your energy, time, etc., entirely to a specific person, activity, or cause; to set apart for a particular purpose or use

18. par____te in the program

v. to take part in something

19. the state of being we__d

adj. extraordinary, unexpected, or difficult to explain

ANSWERS: 11. electrode, 12. dedicate, 13. process, 14. electrode, 15. lab, 16. relax, 17. dedicate, 18. participate, 19. weird

something; to come to a conclusion or judgment after considering options

28. excite the ne___ns

 a cell that is specialized to carry information within the brain and between the brain and other parts of the body

ANSWERS: 20. innervate, 21. pause, 22. cord, 23. discovery, 24. brain, 25. app, 26. interface, 27. decide, 28. neuron

29.	parte fully in conversation	<i>v</i> .	to take part in something
30.	fire stk	v.	to put something, usually a sharp object, into something; to restrict yourself to doing or using one certain thing and not change; (noun) a thin piece of wood or other material
31.	dige a contract	v.	to release or let go of something or someone; to dismiss or terminate an employee or member of an organization; to emit or give off a substance or energy
32.	a chal compound	adj.	relating to or connected with chemistry;
33.	removal of the corpus caum	n.	a large bundle of nerve fibers that connects the two hemispheres of the brain
34.	bard barbecue	n.	a whole space behind and belonging to a house
35.	stte the economy	ν.	to encourage something to develop or become more active; to stir the feelings or emotions
36.	a campus demion	n.	a display or show, often of a particular skill or product, intended to convince or persuade others
37.	nen cell body	n.	a cell that is specialized to carry information within the brain and between the brain and other parts of the body
38.	play in the bard	n.	a whole space behind and belonging to a house

ANSWERS: 29. participate, 30. stick, 31. discharge, 32. chemical, 33. callosum, 34. backyard, 35. stimulate, 36. demonstration, 37. neuron, 38. backyard

substance into a person's or an animal's body using a needle and syringe (= small tube)

a large bundle of nerve fibers that 46. corpus ca____um fiber connects the two hemispheres of the brain

47. fractured u a the longer and thinner of the two bones in the forearm, located on the side opposite to the thumb

ANSWERS: 39. neurological, 40. interface, 41. educe, 42. motor, 43. physiology, 44. disorder, 45. inject, 46. callosum, 47. ulna

48.	ede meaning	ν.	to bring out or develop something, especially information or ideas, from a source
49.	rex at home	<i>v</i> .	to become or cause someone to become less active or tense and calmer
50.	prs improvement	n.	a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products
51.	spI injury	adj.	of or relating to the spine (= the long bone in the body's back)
52.	grte degree program	n.	a person who has a first degree from university or college; (verb) to complete the first course of university or college and get a degree
53.	a wide sle	<i>n</i> .	a part of a garment that covers all or part of an arm
54.	rI down his cheeks	ν.	to move in a particular direction by turning over and over or from side to side
55.	insize customary laws	<i>v</i> .	to establish or make something a part of an institution (= a place such as a university, hospital, etc.)
56.	fever with neucal signs	adj.	of or relating to the science of neurology or the nervous system

ANSWERS: 48. educe, 49. relax, 50. process, 51. spinal, 52. graduate, 53. sleeve, 54. roll, 55. institutionalize, 56. neurological

57.	visual cox neuron	n.	the outermost layer of an organ, especially the brain
58.	eqp an army	<i>v</i> .	to provide a person or a place with the things that are needed for a particular purpose or activity
59.	a political revon	n.	a large-scale attempt to overthrow the government of a country, often using violence or war;
60.	sqe a lemon	ν.	to apply pressure from two or more sides; to hold someone or something tightly in your arms, usually with fondness
61.	brain and spI cord	adj.	of or relating to the spine (= the long bone in the body's back)
62.	degree in eleal engineering	adj.	relating to electricity
63.	insize a system	v.	to establish or make something a part of an institution (= a place such as a university, hospital, etc.)
64.	an eleal storm	adj.	relating to electricity
65.	cognitive comty	n.	the state or quality of being complicated or intricate and difficult to understand
66.	amg advances	adj.	extremely surprising, especially in a way that you like or admire
67.	die prevention	n.	a disorder or illness that affects the body or mind, often characterized by specific symptoms or abnormal functioning of organs or systems
68.	comty theory	n.	the state or quality of being complicated or intricate and difficult to understand

ANSWERS: 57. cortex, 58. equip, 59. revolution, 60. squeeze, 61. spinal, 62. electrical, 63. institutionalize, 64. electrical, 65. complexity, 66. amazing, 67. disease, 68. complexity

69. de e a question to make up someone's mind about ν. something; to come to a conclusion or judgment after considering options 70. beginning of the industrial a large-scale attempt to overthrow the n. rev____on government of a country, often using violence or war; 71. r la ball to move in a particular direction by turning over and over or from side to side 72. medical I b a workplace for the conduct of scientific research; a laboratory to make a low, heavy continuous sound 73. ru___e an order ν. 74. phy____gy research the branch of the biological sciences n. dealing with the functioning of organisms 75. the branch of neu nce the scientific study of the function, n. structure, and disorder of the brain and the nervous system 76. my vo____er work a person who performs or offers to perform a job or service without being paid for or forced to do 77. sq e a confession to apply pressure from two or more sides; to hold someone or something tightly in your arms, usually with fondness

ANSWERS: 69. decide, 70. revolution, 71. roll, 72. lab, 73. rumble, 74. physiology, 75. neuroscience, 76. volunteer, 77. squeeze, 78. disease

a disorder or illness that affects the body or mind, often characterized by

specific symptoms or abnormal functioning of organs or systems

78. di___e control

79.	a hat hk	n.	a curved device used for suspending, holding, or pulling something, especially one attached to a surface for hanging things on; a sharp curve or crook
80.	cox cells	n.	the outermost layer of an organ, especially the brain
81.	cos callous	n.	a collection of texts or documents, usually used in research or analysis
82.	people with bipolar dier	n.	an untidy state or a lack of organization a physical condition or illness that causes problems with how a section of the body or brain functions
83.	affle housing	adj.	not expensive and able to pay
84.	turn out to be all sm	n.	something that is not as good or true as it seems to be and is intended to deceive people; a person who pretends to be something they are not
85.	development of the nes system	adj.	worried and anxious about something; relating to the nerves
86.	a wed dress	adj.	extraordinary, unexpected, or difficult to explain
87.	a scientific diry	n.	the act or process of finding information a place, or an object, or learning about something that was previously not known
88.	the curved shape of a hk	n.	a curved device used for suspending, holding, or pulling something, especially one attached to a surface for hanging things on; a sharp curve or crook

ANSWERS: 79. hook, 80. cortex, 81. corpus, 82. disorder, 83. affordable, 84. sham, 85. nervous, 86. weird, 87. discovery, 88. hook

- 89. get ne___s
- 90. in__t a personal opinion into a debate
- 91. seek vo____ers
- 92. a mo__r mechanic
- 93. st_k a key in a lock
- 94. written co___s
- 95. toxic ch als
- 96. ru___e down the dirt track
- 97. pa__e for a reaction
- 98. fa____te the public
- 99. a s__m battle

- adj. worried and anxious about something; relating to the nerves
- v. to put a liquid such as a drug or other substance into a person's or an animal's body using a needle and syringe (= small tube)
- a person who performs or offers to perform a job or service without being paid for or forced to do
- a device that converts electricity, fuel, etc. into movement and makes a machine, vehicle, etc. work
- v. to put something, usually a sharp object, into something; to restrict yourself to doing or using one certain thing and not change; (noun) a thin piece of wood or other material
- *n.* a collection of texts or documents, usually used in research or analysis
- adj. relating to or connected with chemistry;
- v. to make a low, heavy continuous sound
- v. to take a short break from talking or doing something before continuing
- v. to attract and hold the attention of someone deeply and irresistibly
- n. something that is not as good or true as
 it seems to be and is intended to
 deceive people; a person who pretends
 to be something they are not

ANSWERS: 89. nervous, 90. inject, 91. volunteer, 92. motor, 93. stick, 94. corpus, 95. chemical, 96. rumble, 97. pause, 98. fascinate, 99. sham

100. a theoretical concept in neunce	n.	the scientific study of the function, structure, and disorder of the brain and the nervous system
101. eqp our children with some special skills	ν.	to provide a person or a place with the things that are needed for a particular purpose or activity
102. dige water	v.	to release or let go of something or someone; to dismiss or terminate an employee or member of an organization; to emit or give off a substance or energy
103. permanent br_n damage	n.	the organ inside the head that is responsible for one's movement, thought, memory, and feeling
104. honor grte	n.	a person who has a first degree from university or college; (verb) to complete the first course of university or college

ANSWERS: 100. neuroscience, 101. equip, 102. discharge, 103. brain, 104. graduate

and get a degree

Session 3: Fill in the Blanks

	He suffers from breakdowns. worried and anxious about something; relating to the nerves
2. n.	The doctor prescribed some medicine for the mental an untidy state or a lack of organization; a physical condition or illness that causes problems with how a section of the body or brain functions
3.	The bone is located in the forearm and is crucial in allowing forearm rotation.
n.	the longer and thinner of the two bones in the forearm, located on the side opposite to the thumb
4.	He grows vegetables in his
n.	a whole space behind and belonging to a house
5.	Thousands of people attended the protest against the proposed policy.
n.	a display or show, often of a particular skill or product, intended to convince or persuade others
6.	Through careful analysis, the detective could d the truth from the witness.
<i>v</i> .	to bring out or develop something, especially information or ideas, from a source
7.	The for applying for a visa can be lengthy and complicated.
n.	a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products
	SWERS: 1. nervous, 2. disorder, 3. ulna, 4. backyard, 5. demonstration, 6. educe process

Vocab-Builder Ref from "Greg Gage: How to control someone else's arm with your brain | TED Talk" (52 words)

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ANSWERS: 48. motors, 49. Physiology, 50. dedicated, 51. discovery, 52. decide