

Unit 1 Biography

TEXT A

William Henry Perkin

The man who invented synthetic dyes

- 1. William Henry Perkin was born on March 12, 1838, in London, England. As a boy, Perkin's curiosity prompted early interests in the arts, sciences, photography, and engineering. But it was a chance stumbling upon a run-down, yet functional, laboratory in his late grandfather's home that solidified the young man's enthusiasm for chemistry.
- 2. As a student at the City of London School, Perkin became immersed in the study of chemistry. His talent and devotion to the subject were perceived by his teacher, Thomas Hall, who encouraged him to attend a series of lectures given by the eminent scientist Michael Faraday at the Royal Institution. Those speeches fired the young chemist's enthusiasm further, and he later went on to attend the Royal College of Chemistry, which he succeeded in entering in 1853, at the age of 15.
- 3. At the time of Perkin's enrolment, the Royal College of Chemistry was headed by

the noted German chemist August Wilhelm Hofmann. Perkin's scientific gifts soon caught Hofmann's attention and, within two years, he became Hofmann's youngest assistant. Not long after that, Perkin made the scientific breakthrough that would bring him both fame and fortune.

- 4. At the time, quinine was the only viable medical treatment for malaria. The drug is derived from the bark of the cinchona tree, native to South America, and by 1856 demand for the drug was surpassing the available supply. Thus, when Hofmann made some passing comments about the desirability of a synthetic substitute for quinine, it was unsurprising that his star pupil was moved to take up the challenge.
- 5. During his vacation in 1856, Perkin spent his time in the laboratory on the top floor of his family's house. He was attempting to manufacture quinine from aniline, an inexpensive and readily available coal tar waste product. Despite his best efforts, however, he did not end up with quinine. Instead, he produced a mysterious dark sludge. Luckily, Perkin's scientific training and nature prompted him to investigate the substance further. Incorporating potassium dichromate and alcohol into the aniline at various stages of the experimental process, he finally produced a deep purple solution. And, proving the truth of the famous scientist Louis Pasteur's words 'chance favours only the prepared mind', Perkin saw the potential of his unexpected find.
- 6. Historically, textile dyes were made from such natural sources as plants and animal excretions. Some of these, such as the glandular mucus of snails, were difficult to obtain and outrageously expensive. Indeed, the purple colour extracted from a snail was once so costly that in society at the time only the rich could afford it. Further, natural dyes tended to be muddy in hue and fade quickly. It was against this backdrop that Perkin's discovery was made.
- 7. Perkin quickly grasped that his purple solution could be used to colour fabric, thus making it the world's first synthetic dye. Realising the importance of this breakthrough, he lost no time in patenting it. But perhaps the most fascinating of all Perkin's reactions to his find was his nearly instant recognition that the new dye had commercial possibilities.
- 8. Perkin originally named his dye Tyrian Purple, but it later became commonly

known as mauve (from the French for the plant used to make the colour violet). He asked advice of Scottish dye works owner Robert Pullar, who assured him that manufacturing the dye would be well worth it if the colour remained fast (i.e. would not fade) and the cost was relatively low. So, over the fierce objections of his mentor Hofmann, he left college to give birth to the modern chemical industry.

- 9. With the help of his father and brother, Perkin set up a factory not far from London. Utilising the cheap and plentiful coal tar that was an almost unlimited byproduct of London's gas street lighting, the dye works began producing the world's first synthetically dyed material in 1857. The company received a commercial boost from the Empress Eugenie of France, when she decided the new colour flattered her. Very soon, mauve was the necessary shade for all the fashionable ladies in that country. Not to be outdone, England's Queen Victoria also appeared in public wearing a mauve gown, thus making it all the rage in England as well. The dye was bold and fast, and the public clamoured for more. Perkin went back to the drawing board.
- 10. Although Perkin's fame was achieved and fortune assured by his first discovery, the chemist continued his research. Among other dyes he developed and introduced were aniline red (1859) and aniline black (1863) and, in the late 1860s, Perkin's green. It is important to note that Perkin's synthetic dye discoveries had outcomes far beyond the merely decorative. The dyes also became vital to medical research in many ways. For instance, they were used to stain previously invisible microbes and bacteria, allowing researchers to identify such bacilli as tuberculosis, cholera, and anthrax. Artificial dyes continue to play a crucial role today. And, in what would have been particularly pleasing to Perkin, their current use is in the search for a vaccine against malaria.

Exercises

I. Understanding the text

Ex. 1 Do the following statements agree with the information given in the text? Write

- T if the statement agrees with the information
- F if the statement contradicts the information
- NG if there is no information on this
- 1. Michael Faraday was the first person to recognize Perkin's ability as a student of chemistry.
- 2. Michael Faraday suggested Perkin should enroll in the Royal College of Chemistry.
- 3. Perkin employed August Wilhelm Hofmann as his assistant.
- 4. Perkin was still young when he made the discovery that made him rich and famous.
- 5. The trees from which quinine is derived grow only in South America.
- 6. Perkin hoped to manufacture a drug from a coal tar waste product.
- 7. Perkin was inspired by the discoveries of the famous scientist Louis Pasteur.

Ex.2 Answer the following questions:

- 1. Before Perkin's discovery, with what group in society was the color purple associated?
- 2. What potential did Perkin immediately understand that his new dye had?
- 3. What was the name finally used to refer to the first color Perkin invented?
- 4. What was the name of the person Perkin consulted before setting up his own dye works?
- 5. In what country did Perkin's newly invented color first become fashionable?
- 6. According to the passage, which disease is now being targeted by researchers using synthetic dyes?
- Ex.3 Draw a timeline for William Henry Perkin.

II. Reflecting and connecting

- 1. What leads to Perkin's success? Make a list.
- 2. Can you name some scientists who made breakthroughs in science? What led to their success? Can you tell about their stories?
- 3. As a student, what can we learn from Perkin?

III. Accumulating vocabulary

- 1. Make a list of vocabulary (words and chunks) for talking about scientific research.
- 2. Make a 2-minute presentation about Perkin. Use the vocabulary you have listed.
- 3. Do you notice that some vocabulary used in special ways? E.g. 'fast' in para. 8

TEXT B

Steve Jobs

Walter Isaacson

- 1. His personality was reflected in the products he created. Just as the core of Apple's philosophy, from the original Macintosh in 1984 to the iPad a generation later, was the end-to-end integration of hardware and software, so too was it the case with Steve Jobs: His passions, perfectionism, demons, desires, artistry, devilry, and obsession for control were integrally connected to his approach to business and the products that resulted.
- 2. The unified field theory that ties together Jobs's personality and products begins with his most salient trait: his intensity. His silences could be as searing as his rants; he had taught himself to stare without blinking. Sometimes this intensity was charming, in a geeky way, such as when he was explaining the profundity of Bob Dylan's music or why whatever product he was unveiling at that moment was the most amazing thing that Apple had ever made. At other times it could be terrifying, such as when he was fulminating about Google or Microsoft ripping off Apple.
- 3. This intensity encouraged a binary view of the world. Colleagues referred to the hero/shithead dichotomy. You were either one or the other, sometimes on the same day. The same was true of products, ideas, even food: Something was either "the best thing ever," or it was shitty, braindead, inedible. As a result, any perceived flaw could set off a rant. The finish on a piece of metal, the curve of the head of a screw, the shade of blue on a box, the intuitiveness of a navigation screen—he would declare

them to "completely suck" until that moment when he suddenly pronounced them "absolutely perfect." He thought of himself as an artist, which he was, and he indulged in the temperament of one.

- 4. His quest for perfection led to his compulsion for Apple to have end-to-end control of every product that it made. He got hives, or worse, when contemplating great Apple software running on another company's crappy hardware, and he likewise was allergic to the thought of unapproved apps or content polluting the perfection of an Apple device. This ability to integrate hardware and software and content into one unified system enabled him to impose simplicity. The astronomer Johannes Kepler declared that "nature loves simplicity and unity." So did Steve Jobs.
- 5. This instinct for integrated systems put him squarely on one side of the most fundamental divide in the digital world: open versus closed. The hacker ethos handed down from the Homebrew Computer Club favored the open approach, in which there was little centralized control and people were free to modify hardware and software, share code, write to open standards, shun proprietary systems, and have content and apps that were compatible with a variety of devices and operating systems. The young Wozniak was in that camp: The Apple II he designed was easily opened and sported plenty of slots and ports that people could jack into as they pleased. With the Macintosh Jobs became a founding father of the other camp. The Macintosh would be like an appliance, with the hardware and software tightly woven together and closed to modifications. The hacker ethos would be sacrificed in order to create a seamless and simple user experience.
- 6. This led Jobs to decree that the Macintosh operating system would not be available for any other company's hardware. Microsoft pursued the opposite strategy, allowing its Windows operating system to be promiscuously licensed. That did not produce the most elegant computers, but it did lead to Microsoft's dominating the world of operating systems. After Apple's market share shrank to less than 5%, Microsoft's approach was declared the winner in the personal computer realm.
- 7. In the longer run, however, there proved to be some advantages to Jobs's model. Even with a small market share, Apple was able to maintain a huge profit margin

while other computer makers were commoditized. In 2010, for example, Apple had just 7% of the revenue in the personal computer market, but it grabbed 35% of the operating profit.

- 8. More significantly, in the early 2000s Jobs's insistence on end-to-end integration gave Apple an advantage in developing a digital hub strategy, which allowed your desktop computer to link seamlessly with a variety of portable devices. The iPod, for example, was part of a closed and tightly integrated system. To use it, you had to use Apple's iTunes software and download content from its iTunes Store. The result was that the iPod, like the iPhone and iPad that followed, was an elegant delight in contrast to the kludgy rival products that did not offer a seamless end-to-end experience.
- 9. The strategy worked. In May 2000 Apple's market value was one-twentieth that of Microsoft.
- 10. In May 2010 Apple surpassed Microsoft as the world's most valuable technology company, and by September 2011 it was worth 70% more than Microsoft. In the first quarter of 2011 the market for Windows PCs shrank by 1%, while the market for Macs grew 28%.
- 11. By then the battle had begun anew in the world of mobile devices. Google took the more open approach, and it made its Android operating system available for use by any maker of tablets or cell phones. By 2011 its share of the mobile market matched Apple's. The drawback of Android's openness was the fragmentation that resulted. Various handset and tablet makers modified Android into dozens of variants and flavors, making it hard for apps to remain consistent or make full use of its features. There were merits to both approaches. Some people wanted the freedom to use more open systems and have more choices of hardware; others clearly preferred Apple's tight integration and control, which led to products that had simpler interfaces, longer battery life, greater user-friendliness, and easier handling of content.
- 12. The downside of Jobs's approach was that his desire to delight the user led him to resist empowering the user. Among the most thoughtful proponents of an open environment is Jonathan Zittrain of Harvard. He begins his book *The Future of the*

Internet—And How to Stop It with the scene of Jobs introducing the iPhone, and he warns of the consequences of replacing personal computers with "sterile appliances tethered to a network of control." Even more fervent is Cory Doctorow, who wrote a manifesto called "Why I Won't Buy an iPad" for Boing Boing. "There's a lot of thoughtfulness and smarts that went into the design. But there's also a palpable contempt for the owner," he wrote. "Buying an iPad for your kids isn't a means of jump-starting the realization that the world is yours to take apart and reassemble; it's a way of telling your offspring that even changing the batteries is something you have to leave to the professionals."

13. For Jobs, belief in an integrated approach was a matter of righteousness. "We do these things not because we are control freaks," he explained. "We do them because we want to make great products, because we care about the user, and because we like to take responsibility for the entire experience rather than turn out the crap that other people make." He also believed he was doing people a service: "They're busy doing whatever they do best, and they want us to do what we do best. Their lives are crowded; they have other things to do than think about how to integrate their computers and devices."

Exercises

I. Understanding the text

- 1. What are the main qualities of Steve Jobs discussed in the text?
- 2. How are Apple products different from the other similar products in the world?
- 3. What are the upsides and downsides of the Apple products?

II. Reflecting and connecting

- 1. Based on your reading, can you tell you classmates a biography of Steve Jobs?
- 2. What qualities of Steve Jobs led him to success?
- 3. What can you learn from Steve Jobs?
- 4. What Apple products do you possess? What features of these products do you like best?

TEXT C

Martin Luther King

Passage 1 is from a 2000 biography of Martin Luther King, Jr. written by an African American scholar. Passage 2 is from a 2003 book that examines the famous "1 Have a Dream" speech delivered by Martin Luther King, Jr. at the historic March on Washington in August 1963.

Passage 1

- 1. The ability of the "I Have a Dream" speech to highlight King's early career at the expense of his later career accounts for the tone of impatience and betrayal that often appears when modern-day supporters of King's agenda talk about the speech. Former Georgia state legislator Julian Bond said in 1986 that commemorations of King seemed to "focus almost entirely on Martin Luther King the dreamer, not on Martin King the antiwar activist, not on Martin King the challenger of the economic order, not on Martin King the opponent of apartheid, not on the complete Martin Luther King." One King scholar has proposed a ten-year moratorium on reading or listening to the "I Have a Dream" speech, in the hopes that America will then discover the rest of King's legacy.
- 2. This proposal effectively concedes that King's magnificent address cannot be recovered from the misuse and overquotation it has suffered since his death. But it is not clear that this is so. Even now, upon hearing the speech, one is struck by the many forms of King's genius. Many people can still remember the first time they heard "I Have a Dream," and they tend to speak of that memory with the reverence reserved for a religious experience. At the very least, reflecting on the "I Have a Dream"

speech should be an opportunity to be grateful for the astonishing transformation of America that the freedom movement wrought. In just under a decade, the civil rights movement brought down a system of segregation that stood essentially unaltered since Reconstruction. King's dreams of an America free from racial discrimination are still some distance away, but it is astounding how far the nation has come since that hot August day in 1963. Segregation in the South has been dismantled; there are no longer "Whites Only" signs; segregationist governors do not try to prevent Black children from entering public schools. Toward the end of his life, King preached a sermon entitled "Ingratitude," in which he called ingratitude "one of the greatest of all sins," because the sinner "fail[s] to realize his dependence on others." The annual Martin Luther King holiday is properly a day of national thanksgiving, a time for the nation to recognize the immense debt it owes to King and the thousands of heroes of the civil rights movement for saving the soul of America.

Passage 2

- 1. Martin Luther King was at his best when he was willing to reshape the wisdom of many of his intellectual predecessors. He ingeniously harnessed their ideas to his views to advocate sweeping social change. He believed that his early views on race failed to challenge America fundamentally. He later confessed that he had underestimated how deeply entrenched racism was in America. If Black Americans could not depend on goodwill to create social change, they had to provoke social change through bigger efforts at nonviolent direct action. This meant that Blacks and their allies had to obtain political power. They also had to try to restructure American society, solving the riddles of poverty and economic inequality.
- 2. This is not the image of King that is celebrated on Martin Luther King Day. Many of King's admirers are uncomfortable with a focus on his mature beliefs. They seek to deflect unfair attacks on King's legacy by shroud ing him in the cloth of superhuman heroism. In truth, this shroud is little more than romantic tissue. King's image has often suffered a sad fate. His strengths have been needlessly exaggerated,

his weaknesses wildly overplayed. King's true legacy has been lost to cultural amnesia. As a nation, we have emphasized King's aspiration to save America through inspiring words and sacrificial deeds. Time and again we replay the powerful image of King standing on a national stage in the shadow of the Lincoln Memorial mouthing perhaps the most famous four words ever uttered by a Black American: "I have a dream." For most Americans, those words capture King's unique genius. They express his immortal longing for freedom, a longing that is familiar to every person who dares imagine a future beyond unjust laws and unfair customs. The edifying universality of those four words-who hasn't dreamed, and who cannot identify with people whose dreams of a better world are punished with violence?—helps to explain their durability. But those words survive, too, because they comfort folk who would rather entertain the dreams of unfree people than confront their rage and despair.

Unit 2 Environment

TEXT A

Monster Threatening Earth Is Us

David Suzuki

- 1. Science –fiction writers have long recognized that an invader from outer space could unite all earthlings in a battle against a common enemy.
- 2. Imagine that as that alien runs across the planet, it crushes an acre of forest with each step, scrapes a wide swath of topsoil, blows noxious carbon compounds into the upper atmosphere, and sprays toxic chemicals into the air, water, and land. We could instantly declare a global crisis endangering all life on Earth and marshal all of our forces to do battle with the threat. Today, we are facing precisely those dangers, yet we are doing little to counter them.
- 3. That's because the monster is us. Consider the straight facts, the ones about which there is no controversy.
- 4. We are overrunning the planet like an out-of-control malignancy. There are far more of us than any other large mammal on the planet, and we keep adding to our numbers by 90 million every year.
- 5. We are destroying our soils. Twenty-five billion tons of agricultural topsoil are swept away annually. That's seven percent of the globe's good growing land every

decade. As well, vast areas are being degraded by poor land use. A report by Senator Herbert Sparrow in June 1984 concluded that Canadian farms are mining our soil, degrading it by failing to replace the organic content of farmland. Consequently, since 1984, global food production has declined each year. And this is precisely at the time that human population is exploding.

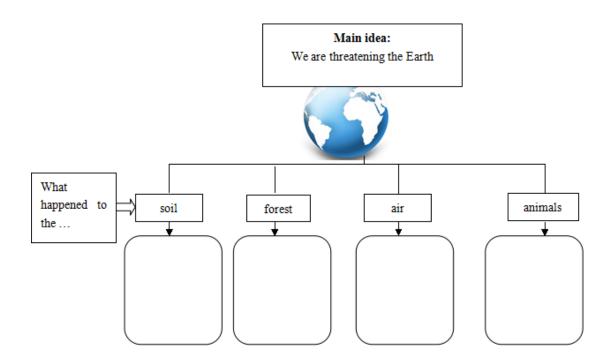
- 6. The devastation is unrelenting. Every five minutes around the clock, 365 days a year, a major shipment of chemicals crosses an international border to be disposed of somewhere, somehow; no place on this planet is free of the toxic debris of technology. Every minute, 50 to 100 acres of tropical forests are destroyed, and the rate of destruction is accelerating. Every year, at least 20000 species disappear forever, and the rate of extinction is speeding up. Every year, in spite of two decades of research and contention, acid rain sterilizes thousands of lakes and kills whole forests.
- 7. In addition, greenhouse heating of the planet is being caused by human beings through our use of fossil fuels (which release carbon dioxide), our farming of cattle (which produce methane), and our production of chemicals (such as CFCs). Warming is already under way, and the agricultural and ecological consequences over the next decades will be totally unprecedented and unpredictable. Even after CFCs are completely eliminated, ozone thinning will continue for years as CFCs already in use escape into the air.
- 8. The 1978 UN-sponsored Brundtland Commission on world environment and development documented the obscene disparity between the industrialized nations and the Third World, making up only twenty percent of the world's population, industrialized countries consume 80 percent of the planet's resources and generate most of its industrial toxins and wastes. Any attempt by the Third World to achieve a level of affluence comparable to ours will be suicidal.
- 9. The challenge, then, is clear, we in the industrialized world must abandon immediately the notion that we must have continued growth, greater consumption, and more material goods. We are already using an immoral amount, and we, not the Third World, are the major cause of the current environmental crises.
- 10. At the same time, we have to help the developing countries raise their standard of

education and living in order to reduce their birth rate and avoid exploiting environmentally destructive technologies such as dams, coal burning, CFC refrigerators, etc. out of pure self-interest, we have to pay to ensure a higher standard of living and more efficient and ecologically benign development in developing countries. We share this finite world with all other people and can no longer treat the disadvantaged of the earth as recklessly as we have in the past.

- 11. Stanford University's Paul Ehrlich points out that people can make major changes swiftly. After Pearl Harbor, we sacrificed, we cut back, we changed our lifestyle, and we fought for survival. Today, "we face a million ecological Pearl Harbors at once." Ehrlich says, "and that's the scale of public response that's needed now."
- 12. We are now in a war to save this planet. Small groups all over the country are drawing their own battle lines, but federal muscle is essential. There is money and personnel —military defence should be redirected to environmental defence while our soldiers can fight oil spills and PCB fires or help to reforest and rehabilitate damaged ecosystems. the war metaphor is appropriate—we are battling to keep the planet livable for our children.
- 13. In the science-fiction stories, human ingenuity and courage usually win out over the aliens from outer space, but this isn't make-believe—it's real and the monster is here.

Exercises

I. Complete the following diagram based on the text article.



II. What can the developing and developed countries do in protecting the global environment?

| oil: recycling, | | | |
|-----------------------------|---------|--|--|
| | | | |
| | | | |
| | | | |
| A: 1 C | | | |
| Air: less use of car, | | | |
| | | | |
| | | | |
| | | | |
| Forest: plant more, cut les | S | | |
| F | -, | | |
| | | | |
| | | | |
| | | | |
| Animals: no dolphins in the | ne zoo, | | |
| | | | |

IV. Pick out the words that express destructive meaning.

Water: ...

| verbs | nouns | adjectives | adverbs |
|------------|----------|------------|---------|
| run across | invaders | noxious | |
| crash | ••• | ••• | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

TEXT B

Dicing with death

Ruth Jemmett

- 1. Every day is fraught with danger. You wake in the morning, rush to the window and take a deep breath. Don't! Hasn't anyone told you about the air being polluted with lead from petrol? Next you go to the bathroom. After touching the lavatory handle, your innocent-looking hands are covered with bacteria, which even a good wash won't entirely remove. You sigh, and get dressed. Good heavens! Didn't you realize that all that nylon won't let your skin breathe?
- 2. With a rash beginning to appear on your skin, you make your way to the kitchen for breakfast. Eating must be good for you, mustn't it? Of course it is, provided you don't have tea or coffee, which are bad for your heart, or a good old-fashioned English fry-up, which will fill your stomach with cholesterol-building fat.
- 3. Depressed—not to mention hungry—you go to clean your teeth. Put down that nylon toothbrush at once! It will ruin your gums. Do you have the courage to weigh yourself? Horrors! You are at least half a stone overweight, which is sure to help send you to an early grave.
- 4. Hesitating, you make your way to the car, knowing that (according to statistics) there is a good chance that either you or one of your nearest and dearest will be involved in an accident sometime during your life. After a heart-thumping journey, you reach work.
- 5. Filled with relief you get into the lift. No! Get out at once and race up those stairs, unless you want a heart attack tomorrow. Panting, you reach the office, where you

collapse into a chair. The cleaner has just left, leaving an aerosol's delightful aroma floating in the air. You inhale deeply, enjoying the sweet fragrance. Danger! Breathing in the substance will ruin your lungs (not to mention our atmosphere, if we are to believe the experts).

- 6. With trembling hands you light a cigarette to calm your nerves. A what? How dare you? In comes your colleague, Ms. Brown, all ready for a busy day, blonde hair and make-up in place. Do you think she's heard about the cancer scare concerning hair dyes and eye-liners?
- 7. At last lunchtime comes. You join your mates in the local for a sandwich. White bread, eh? A low-fiber diet is no good at all. You have 'just one more drink', which helps you on your way to liver failure, and you return to the office. You spend the afternoon fighting a battle with high blood pressure and chronic indigestion (or is it your heart at last?) and give a sigh of relief as 5:30 arrives.
- 8. What a jam on the by-pass tonight. It gets your fingers tapping on the steering wheel, doesn't it? You look in the driving mirror and see a large vein throbbing up and down on your forehead. It throbs even faster as you suddenly remember that article you were reading about strokes.
- 9. A nervous wreck, you reach home. You crawl up the path and fall into your wife's protective arms. She won't last much longer, of course. She's inhaled a large amount of washing powder, quite a few asbestos particles from her hair drier and a great number of chemicals from aerosol sprays.
- 10. But do not fear, civilization is here. Are you really that much happier in our modern technological world with all its new-found knowledge than our ancestors who knew nothing of these things? Is it any surprise that there were no analysts or psychiatrists in any century before ours? I'm sure they didn't need any.

From Sunday Times

Exercises

I. Read the routine activities of a man in the article and find out the possible dangers

associated with these activities.

| Routine activities | Possible dangers |
|-------------------------------------|------------------|
| A deep morning breath by the window | |
| Touching the lavatory handle | |
| Getting dressed | |
| Eating breakfast | |
| Cleaning your teeth | |
| Driving to work | |
| Taking the lift | |
| Settling down in the office | |
| Lunching | |
| Driving home | |
| Hugging his wife | |

II. Find out all the modern products mentioned in the article, and discuss their advantages and disadvantages.

| Products out of modern technology | advantages | disadvantages |
|-----------------------------------|------------|---------------|
| Nylon | | |
| Toothbrush | | |
| Car | | |
| Lift | | |
| Perfume | | |
| Sandwich | | |

| Washing powder | |
|----------------|--|
| Hair direr | |
| | |
| | |

III. Vocabulary learning

| compounds: study the structure and give more examples. adj.+adj→adj.: innocent-looking, old-fashioned, new-found, | | | |
|---|---------------------------------------|--|--|
| n.+ adj. →adj.: | heart-thumping, cholesterol-building, | | |
| v.+adv. →n.: | fry-up, make-up, | | |
| n.+n. →n.: | eye-liner, | | |
| adv.+v. →n.: | by-pass, | | |

TEXT C

A Fable for Tomorrow

- 1. There was once a town in the heart of America where all life seemed to live in harmony with its surroundings. The town lay in the midst of a checkerboard of prosperous farms, with fields of grain and hillsides of orchards where, in spring, white clouds of bloom drifted above the green fields. In autumn, oak and maple and birch set up a blaze of color that flamed and flickered across a backdrop of pines. Then foxes barked in the hills and deer silently crossed the fields, half hidden in the mists of the fall mornings.
- 2. Along the roads, laurel, viburnum and alder, great ferns and wildflowers delighted the traveler's eye through much of the year. Even in winter the roadsides were places of beauty, where countless birds came to feed on the berries and on the seed heads of the dried weeds rising above the snow. The countryside was, in fact, famous for the abundance and variety of its bird life, and when the flood of migrants was pouring through in spring and fall people traveled from great distances to observe them. Others came to fish the streams, which flowed clear and cold out of the hills and contained shady pools where trout lay. So it had been from the days many years ago when the first settlers raised their houses, sank their wells, and built their barns.
- 3. Then a strange blight crept over the area and everything began to change. Some evil spell had settled on the community: mysterious maladies swept the flocks of chickens; the cattle and sheep sickened and died. Everywhere was a shadow of death. The farmers spoke of much illness among their families. In the town the doctors had

become more and more puzzled by new kinds of sickness appearing among their patients. There had been several sudden and unexplained deaths, not only among adults but even among children, who would be stricken suddenly while at play and die within a few hours.

- 4. There was a strange stillness. The birds, for example where had they gone? Many people spoke of them, puzzled and disturbed. The feeding stations in the backyards were deserted. The few birds seen anywhere were moribund; they trembled violently and could not fly. It was a spring without voices. On the mornings that had once throbbed with the dawn chorus of robins, catbirds, doves, jays, wrens, and scores of other bird voices there was now no sound; only silence lay over the fields and woods and marsh.
- 5. On the farms the hens brooded, but no chicks hatched. The farmers complained that they were unable to raise any pigs the litters were small and the young survived only a few days. The apple trees were coming into bloom but no bees droned among the blossoms, so there was no pollination and there would be no fruit.
- 6. The roadsides, once so attractive, were now lined with browned and withered vegetation as though swept by fire. These, too, were silent, deserted by all living things. Even the streams were now lifeless. Anglers no longer visited them, for all the fish had died.
- 7. In the gutters under the eaves and between the shingles of the roofs, a white granular powder still showed a few patches; some weeks before it had fallen like snow upon the roofs and the lawns, the fields and streams.
- 8. No witchcraft, no enemy action had silenced the rebirth of new life in this stricken world. The people had done it themselves.
- 9. Since the mid-1940's, over 500 basic chemicals have been created for use in killing insects, weeds, rodents, and other organisms described in the modern vernacular as "pests", and they are sold under thousand different brand names.
- 10. These sprays, dusts, and aerosols are now applied almost universally to farms, gardens, forests, and homes nonselective chemicals that have the power to kill every insect, the "good" and the "bad," to still the song of birds and the leaping of fish in the

streams, to coat the leaves with a deadly film, and to linger on in soil - all this though the intended target may be only a few weeds or insects. Can anyone believe it is possible to lay down such a barrage of poisons on the surface of the earth without making it unfit for all life?

11. This town does not actually exist, but it might easily have a thousand counterparts in America or elsewhere in the world. I know of no community that has experienced all the misfortunes I describe. Yet every one of these disasters has actually happened somewhere, and many real communities have already suffered a substantial number of them. A grim specter has crept upon us almost unnoticed, and this imagined tragedy may easily become a stark reality we all shall know.

Unit 3 Education

TEXT A

Play Is a Serious Business

Does play help develop bigger, better brains? Bryant Furlow investigates

- 1. Playing is a serious business. Children **engrossed** in a make-believe world, fox **cubs** play-fighting or kittens teasing a ball of string aren't just having fun. Play may look like a **carefree** and **exuberant** way to pass the time before the hard work of adulthood comes along, but there's much more to it than that. For a start, play can even cost animals their lives. Eighty percent of deaths among **juvenile** fur seals occur because playing pups fail to spot **predators** approaching. It is also extremely expensive in terms of energy. Playful young animals use around two or three percent of their energy **cavorting**, and in children that figure can be closer to fifteen percent. 'Even two or three percent is huge,' says John Byers of Idaho University. 'You just don't find animals wasting energy like that,' he adds. There must be a reason.
- 2. But if play is not simply a developmental **hiccup**, as biologists once thought, why did it evolve? The latest idea suggests that play has **evolved** to build big brains. In other words, playing makes you intelligent. Playfulness, it seems, is common only among **mammals**, although a few of the larger-brained birds also **indulge**. Animals at play often use unique signs tail-wagging in dogs, for example to indicate that

activity superficially resembling adult behaviour is not really in earnest. A popular explanation of play has been that it helps juveniles develop the skills they will need to hunt, mate and socialise as adults. Another has been that it allows young animals to get in shape for adult life by improving their **respiratory** endurance. Both these ideas have been questioned in recent years.

- 3. Take the exercise theory. If play evolved to build muscle or as a kind of endurance training, then you would expect to see permanent benefits. But Byers points out that the benefits of increased exercise disappear rapidly after training stops, so any improvement in endurance resulting from juvenile play would be lost by adulthood. 'If the function of play was to get into shape,' says Byers, 'the **optimum** time for playing would depend on when it was most advantageous for the young of a particular species to do so. But it doesn't work like that.' Across species, play tends to peak about halfway through the **suckling** stage and then decline.
- 4. Then there's the skills-training hypothesis. At first glance, playing animals do appear to be practising the complex **manoeuvres** they will need in adulthood. But a closer inspection reveals this interpretation as too simplistic. In one study, behavioural ecologist Tim Caro, from the University of California, looked at the predatory play of kittens and their predatory behaviour when they reached adulthood. He found that the way the cats played had no significant effect on their hunting **prowess** in later life.
- 5. Earlier this year, Sergio Pellis of Lethbridge University, Canada, reported that there is a strong positive link between brain size and playfulness among mammals in general. Comparing measurements for fifteen orders of mammal, he and his team found larger brains (for a given body size) are linked to greater playfulness. The converse was also found to be true. Robert Barton of Durham University believes that, because large brains are more sensitive to developmental **stimuli** than smaller brains, they require more play to help **mould** them for adulthood. 'I concluded it's to do with learning, and with the importance of environmental data to the brain during development,' he says.
- 6. According to Byers, the timing of the playful stage in young animals provides an important clue to what's going on. If you plot the amount of time a juvenile devotes to

play each day over the course of its development, you discover a pattern typically associated with a 'sensitive period' - a brief development window during which the brain can actually be modified in ways that are not possible earlier or later in life. Think of the relative ease with which young children - but not infants or adults - absorb language. Other researchers have found that play in cats, rats and mice is at its most intense just as this 'window of opportunity' reaches its peak.

- 7. 'People have not paid enough attention to the amount of the brain activated by play,' says Marc Bekoff from Colorado University. Bekoff studied coyote pups at play and found that the kind of behaviour involved was markedly more variable and unpredictable than that of adults. Such behaviour activates many different parts of the brain, he reasons. Bekoff **likens** it to a behavioural **kaleidoscope**, with animals at play jumping rapidly between activities. 'They use behaviour from a lot of different contexts-predation, aggression, reproduction,' he says. 'Their developing brain is getting all sorts of stimulation.'
- 8. Not only is more of the brain involved in play than was suspected, but it also seems to activate higher **cognitive** processes. 'There's enormous cognitive involvement in play,' says Bekoff. He points out that play often involves complex assessments of playmates, ideas of **reciprocity** and the use of specialised signals and rules. He believes that play creates a brain that has greater behavioural flexibility and improved potential for learning later in life. The idea is backed up by the work of Stephen Siviy of Gettysburg College. Siviy studied how bouts of play affected the brain's levels of a particular chemical associated with the stimulation and growth of nerve cells. He was surprised by the extent of the activation. 'Play just lights everything up,' he says. By allowing link-ups between brain areas that might not normally communicate with each other, play may enhance creativity.
- 9. What might further experimentation suggest about the way children are raised in many societies today? We already know that rat pups **denied** the chance to play grow smaller brain components and fail to develop the ability to apply social rules when they interact with their peers. With schooling beginning earlier and becoming increasingly exam-orientated, play is likely to get even less of a look-in. Who knows

what the result of that will be?

Exercises

I. Warming up

Think of some games you enjoyed playing in your childhood and explain why you liked it. Do you think these games have some help in any way for your later adult life?

II. Reading and Understanding

- 1. Summarize the main idea of each paragraph.
- 2. Has the author answered the question at the beginning "Does play help develop bigger, better brains?"

| | brains?" | | | |
|------|---|--|--|--|
| 3. | How is the style of language different from the next article? | | | |
| III. | Exploring the Vocabulary | | | |
| 1. | Learning prefixes: In-=inside, en-=enable; pre-=before, ahead; | | | |
| | Guess the meaning of the following words. Can you give more examples with similar prefix? | | | |
| | Engrossed: | | | |
| | Indulge: | | | |
| | Predators: | | | |
| 2. | Study the stem: -volve-=moving around. Check the meaning of the following words. | | | |
| | Evolved: | | | |
| | Involve: | | | |
| | Revolve: | | | |
| | Devolve: | | | |
| 3. | Compare the two words: Like—liken | | | |
| IV. | Thinking and Discussing | | | |
| 1. I | Besides the benefits of play mentioned in the text, what other benefits of play can you think of? | | | |
| (to | learn the rule of the game and later the rule of the society, to develop endurance and tolerance, | | | |
| to h | have courage to venture and know how to share) | | | |
| | | | | |

V. Writing

Based on the article, write an essay to argue for more play time for school children.

TEXT B

Education for one world

Jack Costello

- 1. From Plato to John Dewey, philosophers of education have insisted that a system of education can be effective only if it takes account of social conditions. Young people, they all agreed, must be trained for the society in which they are to live. So most educators have **conscientiously** transmitted their cultural **heritage** while trying, with greater or lesser success, to relate it to their own times.
- 2. But something has happened on the way to the future that neither Plato nor Dewey nor anyone in the centuries between them could have foreseen. Two historical factors are **distinctive** about our situation: first, the massive **acceleration** of all forms of change, and second, what can be called a "loss of faith" in our civilization on the part of its own members. It has become increasingly difficult to educate for a changing world.
- 3. In 1949, when he was almost 60 years old, the Scottish philosopher John Macmurray gave a talk on education reflecting on the **devastating** impact the First World War had on European civilization's experience of itself as a **stable** and rational social order. He **confessed** to his audience, "I have been trying to catch up with a process of change that is too fast for me, and falling steadily behind faint but pursuing. Ever since 1919, I have felt that I was educated for a world in which I have never lived; and have had to live in a world for which I was never educated."
- 4. Most of those who are middle-aged or older recognize themselves in this confession. They were given an education in cultural ideals, career goals, scientific

theories, social values, even notions of the right order of the world that were meant to last a lifetime and beyond. But they now find themselves shaken by what has happened to these notions in "real life." The world that produced these ideas is no longer the world they live in. Along with Macmurray, they have had to **scramble** to re-educate themselves, feeling all the while that the world will always be moving faster than they can follow.

- This leads quite naturally to the loss of faith that characterizes our society. By faith, I do not mean primarily belief in a set of doctrines, but the shared meanings and purposes that direct our choices as a society and give us the capacity to act according to them. At root it must be religious. This faith is gone. Its disappearance is due partly to the breakup of the stable, nineteenth-century world and its world view that Macmurray described, and partly to our failure in the twentieth century to find new terms for a faith that can direct us. Because of that vacuum in our collective soul, we feel fragmented, drifting, caught up by events and technology rather than being directed by any unified purpose that engages our heart and soul. We have lost a capacity to choose and to act together, because without faith there is no common principle of valuation, and therefore no unity of purpose. This makes us a fearful and a grasping people. We define our problems in economic terms, constantly serving the economy as if it were some cruel ancient god demanding sacrifice. The truth is that we will never resolve our economic troubles until we have solved the **dilemma** in our spiritual life that produces them. And the same can be said for our quandary about how to educate ourselves and our children at this time.
- 6. Thus, education today carries a special burden: we want to educate our children to live well while having little collective wisdom to share with them about what the good life is or how to achieve it. At the same time, we are trying to educate them for a society that will be culturally very different from our own. No wonder educators are confused.
- 7. I am convinced we will get a fix on sound educational objectives only if we can come both to some shared faith in what the "way to genuine life" is for our world at this time and to some capacity to live **graciously** and creatively with constant change.

- 8. The search for a new faith for society could also be expressed in this religious form: In what direction is the Spirit of God leading the world at this time? If we can **discern** this direction and ally ourselves with the Spirit to bring this about, then we will have a sure (though moving) relationship to our own center into which much change can flow without destroying our personal unity or making us constantly feel nostalgic.
- 9. The basic issues facing education in our society are contained in these questions: What is the way to fuller life for our world at this point in history, and can we choose to co-operate in that direction? If this is a fair **appraisal** of our dilemma, then we must reject any view that suggests the basic purpose of education today can be expressed by focusing simply on learning the heritage of the past, meeting the needs of the individual, preparing for careers, or simply acquiring "tools" or "skills" for survival.
- 10. The very fact that the world one generation ahead is so hard to foresee reveals that we ourselves live and educate in a time of permanent cultural revolution. If this is so, and I believe it to be, then we have no choice but to consider education as cultural action. It must be education that shapes not only the way our children think about their own lives and goals but also the way they see the society they live in and the way they choose to judge it and act in it. And it must teach them not only to accommodate themselves to life as they find it but to be shapers of society itself, giving direction to its goals and structures that will lead to greater life.
- 11. Many people judge our era to be a time of revolution because the peoples of the world are in the process of becoming a "world society" beyond the framework of national sovereign states and their partial alliances that have held sway for so many years. For the past several decades, the nations of the world have moved into deep interdependence with one another in their economic affairs, in spite of their **presumed** independence. This economic interdependence is a fact of life that will not go away but can only increase. The reality of our world relationships calls desperately now for a corresponding political interdependence that will place all nations under some commonly accepted system of planetary law in relation to areas of shared concern.

The time for such an international order is here — and overdue— if we are to avoid further wars and even greater destruction of our planet. Finally, our times call out for a celebration of our human interdependence as an end in itself.

- 12. Teaching our children and ourselves to articulate, own, and promote this human interdependence already beginning to shape our world should be, in my judgment, the most urgent educational objective in the dominant countries in the world today. Our times require nothing less than this: that the Western countries (the First World) and the Eastern Bloc (the Second World), along with Japan, learn to relinquish all claims to **supremacy** and begin to act in a genuinely co-operative and equal relationship with the rest of the world.
- 13. Our education systems must help us try to achieve this basic conversion. They must help us move from seeing ourselves simply as citizens of one country to embracing our participation in a world order in which membership is determined not by skin color or a country's economic system but by our common humanity.
- 14. Implicit in this revolution in our self-image would be a commitment to change the way we live and our educational goals and strategies from kindergarten to Ph.D. As John Macmurray observed, "We are committed not merely to seek for knowledge but to live by it; and not merely as individuals but as communities with the goal of becoming the single community of humankind."

Exercises

I. Warm up

Read the quotations on aims of education, and discuss: what is the purpose of education in your mind?

- The aim of education should be to teach us rather how to think, than what to think rather to improve our minds, so as to enable us to think for ourselves, than to load the memory with thoughts of other men. ~Bill Beattie
- The whole purpose of education is to turn mirrors into windows. ~Sydney J. Harris
- He who opens a school door, closes a prison. ~Victor Hugo
- Education is what remains after one has forgotten what one has learned in school. ~Albert
 Einstein

- An educational system isn't worth a great deal if it teaches young people how to make a living but doesn't teach them how to make a life. ~Author Unknown
- Education would be much more effective if its purpose was to ensure that by the time they
 leave school every boy and girl should know how much they do not know, and be imbued
 with a lifelong desire to know it. ~William Haley
- The object of education is to prepare the young to educate themselves throughout their lives.
 ~Robert Maynard Hutchins

II. Structure and style

- 1. Paragraph 8 marks a change in the direction of the essay. What is the difference between the content of paragraph 1 to 7 and that which follows?
- 2. What is the tone of the article?
- 3. The writer makes a significant effort to assist the reader by providing a number of transitions throughout, make a list of all the transitions you find in the essay.

III. Thinking and Discussing

- 1. In paragraph 2, the author suggested two historical factors are **distinctive** about our situation: first, the massive **acceleration** of all forms of change, and second, what can be called a "loss of faith". Can you list any examples of the massive changes of the centuries? Do you agree that there is a "loss of faith" in present generation? State your reasons.
- 2. Do you agree with John Macmurray's opinion that "We are committed not merely to seek for knowledge but to live by it; and not merely as individuals but as communities with the goal of becoming the single community of humankind"?

IV. Exploring and Writing

1. In the introduction, the author outlines a part of the historical background of the philosophy of education, "from Plato to Dewey". Read more works of Plato and Dewey on education and write a summary of their main ideas and make some comparison.

TEXT C

Early Childhood Education

New Zealand's National Pony spokesman on education, Dr. Lockwood Smith, recently visited the US and Britain. Here he reports on the findings of his trip and what they could mean for New Zealand's education policy.

[A] 'Education To Be More' was published last August. It was the report of the New Zealand Government's Early Childhood Care and Education Working Group. The report argued for enhanced equity of access and better funding for childcare and early childhood education institutions. Unquestionably, that's a real need; but since parents don't normally send children to pre-schools until the age of three, are we missing out on the most important years of all?

[B] A 13-year study of early childhood development at Harvard University has shown that, by the age of three, most children have the potential to understand about 1000 words - most of the language they will use in ordinary conversation for the rest of their lives.

Furthermore, research has shown that while every child is born with a natural curiosity, it can be suppressed dramatically during the second and third years of life. Researchers claim that the human personality is formed during the first two years of life, and during the first three years children learn the basic skills they will use in all their later learning both at home and at school. Once over the age of three, children continue to expand on existing knowledge of the world.

【C】 It is generally acknowledged that young people from poorer socio-economic backgrounds tend to do less well in our education system. That's observed not just in New Zealand, but also in Australia, Britain and America. In an attempt to overcome

that educational under-achievement, a nationwide programme called 'Headstart' was launched in the United States in 1965. A lot of money was poured into it. It took children into pre-school institutions at the age of three and was supposed to help the children of poorer families succeed in school.

Despite substantial funding, results have been disappointing. It is thought that there are two explanations for this. First, the programme began too late. Many children who entered it at the age of three were already behind their peers in language and measurable intelligence. Second, the parents were not involved. At the end of each day, 'Headstart' children returned to the same disadvantaged home environment.

[D] As a result of the growing research evidence of the importance of the first three years of a child's life and the disappointing results from 'Headstart', a pilot programme was launched in Missouri in the US that focused on parents as the child's first teachers. The 'Missouri' programme was predicated on research showing that working with the family, rather than bypassing the parents, is the most effective way of helping children get off to the best possible start in life. The four-year pilot study included 380 families who were about to have their first child and who represented a cross-section of socio-economic status, age and family configurations. They included single-parent and two-parent families, families in which both parents worked, and families with either the mother or father at home.

The programme involved trained parent—educators visiting the parents' home and working with the parent, or parents, and the child. Information on child development, and guidance on things to look for and expect as the child grows were provided, plus guidance in fostering the child's intellectual, language, social and motor-skill development. Periodic check-ups of the child's educational and sensory development (hearing and vision) were made to detect possible handicaps that interfere with growth and development. Medical problems were referred to professionals.

Parent-educators made personal visits to homes and monthly group meetings were held with other new parents to share experience and discuss topics of interest. Parent resource centres, located in school buildings, offered learning materials for

families and facilitators for child care.

[E] At the age of three, the children who had been involved in the 'Missouri' programme were evaluated alongside a cross-section of children selected from the same range of socio-economic backgrounds and Family situations, and also a random sample of children that age. The results were phenomenal. By the age of three, the children in the programme were significantly more advanced in language development than their peers, had made greater strides in problem solving and other intellectual skills, and were further along in social development. In fact, the average child on the programme was performing at the level of the top 15 to 20 per cent of their peers in such things as auditory comprehension, verbal ability and language ability.

Most important of all, the traditional measures of 'risk', such as parents' age and education, or whether they were a single parent, bore little or no relationship to the measures of achievement and language development. Children in the programme performed equally well regardless of socio-economic disadvantages. Child abuse was virtually eliminated. The one factor that was found to affect the child's development was family stress leading to a poor quality of parent-child interaction. That interaction was not necessarily bad in poorer families.

[F] These research findings are exciting. There is growing evidence in New Zealand that children from poorer socio-economic backgrounds are arriving at school less well developed and that our school system tends to perpetuate that disadvantage. The initiative outlined above could break that cycle of disadvantage. The concept of working with parents in their homes, or at their place of work, contrasts quite markedly with the report of the Early Childhood Care and Education Working Group. Their focus is on getting children and mothers access to childcare and institutionalised early childhood education. Education from the age of three to five is undoubtedly vital, but without a similar focus on parent education and on the vital importance of the first three years, some evidence indicates that it will not be enough to overcome educational inequity.

Unit 4 Health

TEXT A

Changing our Understanding of Health

- 1. The concept of health holds different meanings for different people and groups. These meanings of health have also changed over time. This change is no more evident than in Western society today, when notions of health and health promotion are being challenged and expanded in new ways.
- 2. For much of recent Western history, health has been viewed in the physical sense only. That is, good health has been connected to the smooth mechanical operation of the body, while ill health has been attributed to a breakdown in this machine. Health in this sense has been defined as the absence of disease or illness and is seen in medical terms. According to this view, creating health for people means providing medical care to treat or prevent disease and illness. During this period, there was an emphasis on providing clean water, improved sanitation and housing.
- 3. In the late 1940s the World Health Organisation challenged this physically and medically oriented view of health. They stated that 'health is a complete state of physical, mental and social well-being and is not merely the absence of disease' (WHO, 1946). Health and the person were seen more holistically (mind/body/spirit) and not just in physical terms.

- 4. The 1970s was a time of focusing on the prevention of disease and illness by emphasizing the importance of the lifestyle and behaviour of the individual. Specific behaviours which were seen to increase risk of disease, such as smoking, lack of fitness and unhealthy eating habits, were targeted. Creating health meant providing not only medical health care, but health promotion programs and policies which would help people maintain healthy behaviours and lifestyles. While this individualistic healthy lifestyles approach to health worked for some (the wealthy members of society), people experiencing poverty, unemployment, underemployment or little control over the conditions of their daily lives benefited little from this approach. This was largely because both the healthy lifestyles approach and the medical approach to health largely ignored the social and environmental conditions affecting the health of people.
- 5. During the 1980s and 1990s there has been a growing swing away from seeing lifestyle risks as the root cause of poor health. While lifestyle factors still remain important, health is being viewed also in terms of the social, economic and environmental contexts in which people live. This broad approach to health is called the social-ecological view of health. The broad socio-ecological view of health was endorsed at the first International Conference of Health Promotion held in 1986, Ottawa, Canada, where people from 38 countries agreed and declared that:
- 6. The fundamental conditions and resources for health are peace, shelter, education, food, a viable income, a stable eco-system, sustainable resources, social justice and equity. Improvement in health requires a secure foundation in these basic requirements.
- 7. It is clear from this statement that the creation of health is about much more than encouraging healthy individual behaviours and lifestyles and providing appropriate medical care. Therefore, the creation of health must include addressing issues such as poverty, pollution, urbanization, natural resource depletion, social alienation and poor working conditions. The social, economic and environmental contexts which contribute to the creation of health do not operate separately of independently of each other. Rather, they are interacting and interdependent, and it is the complex

interrelationships between them which determine the conditions that promote health. A broad socio-ecological view of health suggests that the promotion of health must include a strong social, economic and environment focus.

8. At the Ottawa Conference in 1986, a charter was developed which outlined new directions for health promotion based on the socio-ecological vies of health. This charter, known as the Ottawa Charter for Health Promotion, remains as the backbone of health action today. In exploring the scope of health promotion it states that:

Good health is a major resource for social, economic and personal development and an important dimension of quality of life. Political, economic, social, cultural, environmental, behavioural and biological factors can all favour health or be harmful to it. (WHO, 1986)

9. The Ottawa Charter brings practical meaning and action to this broad notion of health promotion. It presents fundamental strategies and approaches in achieving health for all. The overall philosophy of health promotion which guides these fundamental strategies and approaches is one of 'enabling people to increase control over and to improve their health' (WHO, 1986).

Note:

1. Ottawa Charter for Health Promotion:

The Ottawa Charter for Health Promotion is the name of an international agreement signed at the First International Conference on Health Promotion, organized by the World Health Organization (WHO) and held in Ottawa, Canada, in November 1986. World Health Organization.

2. Health Promotion:

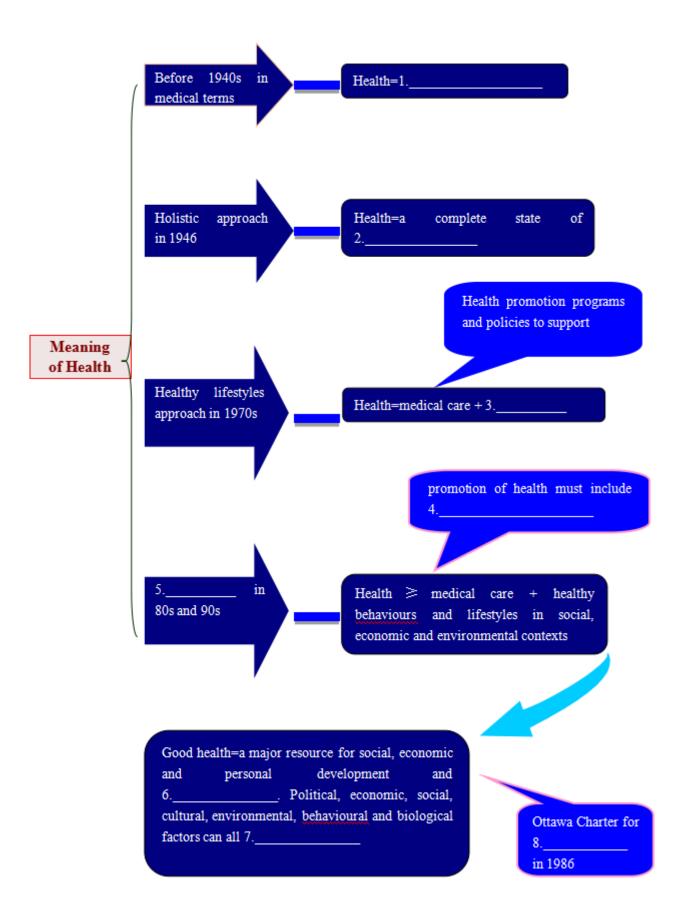
Health promotion has been defined by the World Health Organization's (WHO) 2005 Bangkok Charter for Health Promotion in a Globalized World as "the process of enabling people to increase control over their health and its determinants, and thereby improve their health".

Exercises

I. Warm-up Questions:

- 1. Are you in good health?
- 2. What is your understanding of good health?
- 3. What is sub-health? How to deal with sub-health?

II. Read the article carefully and filling the blanks:



III. Exploring the vocabulary:

Matching the words in column A with the definition in column B.

| \mathbf{A} | В |
|----------------|---|
| 1. sanitation | a. capable of being sustained |
| 2. endorse | b. a central cohesive source of support and stability |
| 3. viable | c. the feeling of being alienated from other people |
| 4. sustainable | d. capable of life or normal growth and development |
| 5. depletion | e. the state of being clean and conducive to health |
| 6. alienation | f. approve of; give support or one's approval to |
| 7. backbone | g. the act of decreasing something markedly |

IV. Questions for discussion:

- 1. Among the following factors, which one in your opinion is the most important factor that can influence one's health? And tell us the reason. (Political, economic, social cultural, environmental, behavioural and biological factors)
- 2. How do you understand that each factor (mentioned above) could influence our health?
- 3. What do you think of the Ottawa Charter for Health Promotion and how do you understand health promotion?
- 4. Are you healthy according to Ottawa Charter?
- 5 Do you agree with the opinion that Governments have a responsibility for the health of their peoples?

IV. Further exploring after class:

The Bangkok Charter for Health Promotion

TEXT B

How much can an extra hour's sleep change you?

- 1. The average Briton gets six-and-a-half hours' sleep a night, according to the Sleep Council. Michael Mosley took part in an unusual experiment to see if this is enough. It has been known for some time that the amount of sleep people get has, on average, declined over the years.
- 2. This has happened for a whole range of reasons, not least because we live in a culture where people are encouraged to think of sleep as a luxury something you can easily cut back on. After all, that's what **caffeine** is for to **jolt** you **back** into life. But while the average amount of sleep we are getting has fallen, rates of obesity and **diabetes** have soared. Could the two be connected?

We wanted to see what the effect would be of increasing average sleep by just one hour. So we asked seven volunteers, who normally sleep anywhere between six and nine hours, to be studied at the University of Surrey's Sleep Research Centre.

- 3. The volunteers were randomly **allocated** to two groups. One group was asked to sleep for six-and-a-half hours a night, the other got seven-and-a-half hours. After a week the researchers took blood tests and the volunteers were asked to switch sleep patterns. The group that had been sleeping six-and-a-half hours got an extra hour, the other group slept an hour less.
- 4. While we were waiting to see what effect this would have, I went to the John Radcliffe hospital in Oxford to learn more about what actually happens when we sleep.

In the Sleep Centre, they fitted me up with a portable **electro-encephalograph**, a device that measures brain wave activity. Then, feeling slightly ridiculous, I went home and had my seven-and-a-half hours of sleep.

- 5. The following day I went to discuss what had happened inside my head during the night with Dr Katharina Wulff.
- 6. The first thing she pointed out was that I had very rapidly fallen into a state of deep sleep. Deep sleep sounds restful, but during it our brains are actually working hard. One of the main things the brain is doing is moving memories from short-term storage into long-term storage, allowing us more short-term memory space for the next day. If you don't get adequate deep sleep then these memories will be lost.
- 7. You might think: "I'll cut back during the week and then make up for it at the weekend." Unfortunately it doesn't work like that, because memories need to be **consolidated** within 24 hours of being formed.
- 8. Since deep sleep is so important for consolidating memories it is a good idea if you are revising or perhaps taking an exam to make sure that you're getting a reasonable night's sleep. In one study, people who failed to do so did 40% worse than their contemporaries.
- 9. Deep sleep only lasts for a few hours. My **electrode** results showed that during the night my brain went through multiple phases of another kind of activity, called REM sleep.
- 10. "This is the phase when you are usually **paralysed** so you can't move," Wulff explained. But the eye muscles are not paralysed, and that's why it's called rapid eye movement sleep."
- 11. During REM sleep an extraordinary thing happens. One of the stress-related chemicals in the brain, **noradrenalin**, is switched off. It's the only time, day or night, this happens. It allows us to remain calm while our brains reprocess all the experiences of the day, helping us come to terms with particularly emotional events.
- 12. We get more REM sleep in the last half of the night. Which means that if you are woken unexpectedly, your brain may not have dealt with all your emotions which could leave you stressed and anxious. Drinking alcohol late at night is not a good idea

as it reduces your REM sleep while it's being processed in your body.

- 13. Back at the University of Surrey our sleep volunteers had finished their second week of the experiment. What we wanted to see was the effect switching from six-and-a-half hours to seven-and-a-half hours, or vice versa, would have on our volunteers.
- 14. Computer tests revealed that most of them struggled with mental **agility** tasks when they had less sleep, but the most interesting results came from the blood tests that were run.
- 15. Dr Simon Archer and his team at Surrey University were particularly interested in looking at the genes that were switched on or off in our volunteers by changes in the amount that we had made them sleep.
- 16. "We found that overall there were around 500 genes that were affected," Archer explained. "Some which were going up, and some which were going down."
- 17. What they discovered is that when the volunteers cut back from seven-and-a-half to six-and-a-half hours' sleep a night, genes that are associated with processes like **inflammation**, immune response and response to stress became more active. The team also saw increases in the activity of genes associated with diabetes and risk of cancer. The reverse happened when the volunteers added an hour of sleep.
- 18. So the clear message from this experiment was that if you are getting less than seven hours' sleep a night and can alter your sleep habits, even just a little bit, it could make you healthier. "Have a lie-in, it will do you good" that's the kind of health message that doesn't come along very often.

Exercises

I. Warm-up Questions:

- 1. Do you think you have enough sleep? How many hours do you sleep everyday?
- 2. In what way does sleep have something to do with our health?
- 3. What kind of diseases will attack us if we don't have enough sleep?

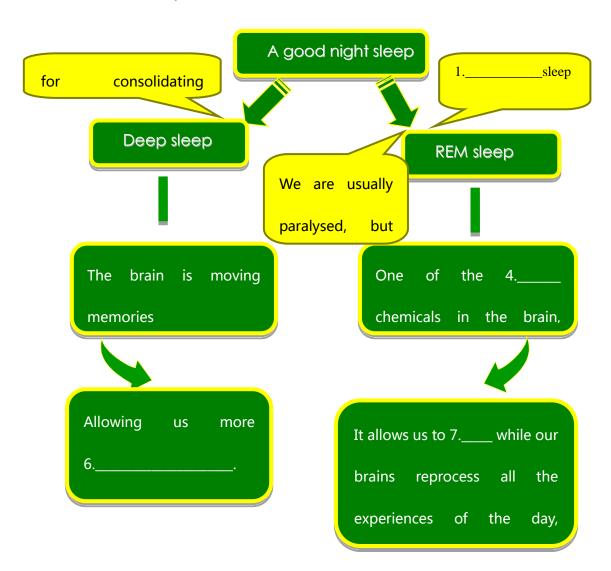
II. True or False Exercise

Read the article carefully and write a T(true) if the statement is true or an F(false) if the

statement is false.

- 1. When we fall into a state of deep sleep, we have a restful sleep mentally and physically.
- 2. One of the main things the brain is doing in deep sleep is moving memories from short-term storage into long-term storage.
- 3. If you don't get adequate deep sleep during the week, memories can be consolidated at the weekend.
- 4. We can consolidate our memories whenever we like.
- 5. One of the stress-related chemicals in the brain, **noradrenalin**, can be switched off when we have deep sleep.
- 6. We get more REM sleep in the last half of the night.
- 7. If you are woken unexpectedly in the last half of the night, you could feel stressed and anxious.
- 8. Drinking alcohol late at night make us fall into REM sleep quickly.
- 9. Obesity and diabetes has nothing to do with our lack of sleep.
- 10. Genes associated with diabetes and risk of cancer will become more active when we have enough sleep.

III. Read the article carefully and fill in the blanks:



IV. Questions for discussion:

- 1. What will happen to our short-term memories if we don't get adequate deep sleep?
- 2. What will happen to us the next day if you are woken unexpectedly in the last half of the night?
- 3. How many hours of sleep can make us healthier?
- 4. What kind of genes would be affected if we don't have enough sleep?
- 5. How much can an extra hour's sleep change you?

V. Further exploring after class:

What other benefits does sleep bring to us?

TEXT C

Length of gene determines how happy you will be

The study found people living in Denmark had the longest form of the gene, and as a result were found to be among the happiest nations in the world

The French are often accused of being grumpy and dismissive.

But Britons and Americans are also hardwired to be miserable, scientists claim.

Despite stable governments and good economies, those living in the UK and US will never be as happy as people in other nations, because they are simply born more miserable.

They are genetically programmed to be less cheerful than the Danes, for example, who top the list of the happiest nation.

And scientists at the University of Warwick discovered it all comes down to a gene which regulates levels of the **hormone serotonin** in the brain.

Short forms of the gene inhibit levels of the hormone, which can **invoke** depression.

Meanwhile those with longer forms of the gene are more likely to be happier, as a result of higher levels of serotonin in the body.

Researchers discovered people from Denmark have the longest form of the gene, and as such topped the happiness chart.

But Professor Andrew Oswald said it could be worse, we could be French - the nation with one of the shortest forms of the gene, which may explain their reputation for being grumpy.

Annual tables of national happiness ratings, compiled by organisations across the world, tend to rank Denmark at the top, along with nations including Panama and Vietnam.

They use factors ranging from job satisfaction to economic progress, health, wealth and education standards, along with weather, war and political stability to judge nations.

Scandinavians do well as their health is good, they are educated to a high standard and they earn more. But warm weather countries can do well too.

Some wealthy Western countries fare less well because there are big divides between rich and poor or they have high unemployment rates or less job satisfaction for instance.

But according to Professor Oswald, many of these may still be miserable even if they are earning a fortune, **basking** in sunshine and living to 100.

His findings from 131 countries for the **ESRC** Festival of Social Sciences, found genetics to be the most important factor but not the only one.

Those who are either young or old tend to be happiest rather than those who are middle aged.

Those who are slim are happiest, with **obesity** levels in some developed countries making them less happy as nations.

And being married, in a job and well educated can also be a **contributory** factor.

Professor Oswald, said: 'Intriguingly, among the nations we studied, Denmark and the Netherlands appeared to have the lowest percentage of people with the short version of the serotonin gene.'

He added that many individual Americans were happy but they tended to be

descended from immigrants who came from countries like Denmark in the first place.

He said: 'There was a direct correlation between the (US) individual's reported

happiness, and the levels of happiness in the country their ancestors had come from.'

'Our study revealed an unexplained correlation between the happiness today of some

nations and the observed happiness of Americans whose ancestors came from these

nations.'

Note:

ESRC: Economic and Social Research Council

49

Unit 5 Communication

TEXT A

Sex, Sighs, and Conversations:

Why Men and Women Can't Communicate

Deborah Tannen

- 1. A man and a woman were seated in a car that had been circling the same area for a half hour. The woman was saying, "Why don't we just ask someone?" The man was saying, not for the first time, "I'm sure it's around here somewhere. I'll just try this street."
- 2. Why are so many men reluctant to ask directions? Why aren't women? And why can't women understand why men don't want to ask? The explanation, for this and for countless minor and major frustrations that women and men encounter when they talk to each other, lies in the different ways that they use language—differences that begin with how girls and boys use language—differences that begin with how girls and boys use language as children, growing up in different worlds.
- 3. Anthropologists, sociologists and psychologists have found that little girls play in small groups or in pairs; they have best friends, with whom they spend a lot of time talking. It's the telling of secrets that makes them best friends. They use language to negotiate intimacy- to make connections and feel close to each other.

- 4. Boys, on the other hand, tend to play competitive games in larger groups, which are hierarchical. High status boys give orders, and low status boys are pushed around. So boys learn to use language to preserve independence and negotiate their status, trying to hold center stage, challenge and resist challenges, display knowledge and verbal skill.
- 5. These divergent assumptions about the purpose of language persist into adulthood, where they lie in wait behind cross-gender conversations, ready to leap out and cause puzzlement or grief. In the case of asking for directions, the same interchange is experienced differently by women and men. From a woman's perspective, you ask for help, you get it, and you get to where you're going. A fleeting connection is made with a stranger, which is fundamentally pleasant. But a man is aware that by admitting ignorance and asking for information, he positions himself one-down to someone else. Far from pleasant, this is humiliating. So it makes sense for him to preserve his independence and self-esteem at the cost of little extra travel time.
- 6. Here is another scene from the drama of differences in men's and women's ways of talking. A woman and a man return home from work. She tells everything that happened during the day: what she did, whom she met, what they said, what they made her think. Then she turns to him and asks, "How was your day?" He says, "Same old rat race." She feels locked out: "You don't tell me anything." He protests, "Nothing happened at work." They have different assumptions about "anything" to tell. To her, telling life's daily events and impressions means she's not alone in the world. Such talk is the essence of intimacy—evidence that she and her partner are best friends. Since he never spent time talking in this way with his friends, best or otherwise, he doesn't expect it, doesn't know how to do it, and doesn't miss it when it isn't there.
- 7. Another source of mutual frustration is the difference in women's and men's understanding about "trouble talk." She begins to talk about a problem; he offers a solution; she dismisses it, feeling upset. He feels upset, too: "She complains, but she

doesn't want to do anything to solve her problems." Indeed, all she wants is to talk. She is frustrated because his solution stops her talk and implies she shouldn't be wasting time talking about it.

- 8. The female search for connection and the male concern with hierarchy is evident here, too. When a woman tells another woman about a problem, her friend typically explores the problem ("And then what did he say?" "What do you think you might do?"); shows understanding ("I know how you feel."); or offers a similar experience ("It's like the time I...."). All these responses show support and bring them closer. But offering a solution makes the problem-solver look better than others. This creates distance, just the opposite of what she wants when she brings up the conversation.
- 9. A similar mismatch of expectations occurs when a woman complains about her boss, and a man tries to be helpful by explaining the boss' point of view. She perceives this as an attack, and a lack of loyalty to her. One man told me, incredulously, "My girlfriend just wants to talk about her point of view." He feels that offering opposing views is obviously a more constructive conversational contribution. But conversations among women are usually characterized by mutual support and exploration. Alternative views may be introduced, but they are phrased as suggestions and questions, not as direct challenges. This is one of the many ways that men value oppositional stances, whereas women value harmonious ones.
- 10. A woman was hurt when she heard her husband telling the guests at a dinner party about an incident with his boss that he hadn't told her. She felt this proved that he hadn't been honest when he'd said nothing happened at work. But he didn't think of this experience as a story to tell until he needed to come up with material to show that he's in charge at the dinner party.
- 11. Thus, it isn't that women always talk more, while men are taciturn and succinct. Women talk more at home, since talk, for them, is a way of creating close feelings. Since men regard talk as a means to show they are in charge, they often see no need to talk at home. But they talk more in "public" situations with people they know less well. At a meeting, when questions are asked from the floor, it is almost always a

man who speaks first. When the phones are opened on a radio talk show, the vast majority of calls are from men, who are more likely to speak more to explain their questions (if they have any) and address many different topics.

12. Generalizing about groups of people makes many of us nervous. We like to think of ourselves as unique individuals, not representatives of stereotypes. But it is more dangerous to ignore patterns than to articulate them.

13. If women and men have different ways of talking (and my research, and that of others, show that they do), then expecting us to be the same leads to disappointment and conflicts. Unaware of conversational style differences, we tend to blame each other: "You go on and on talking about nothing." "You don't listen to me."

14. Realizing that a partner's behavior is not his or her individual failing, but a normal expression of gender, lifts this burden of blame and disappointment. Surprisingly, years together can make the relationship worse, rather than better. After 57 years of marriage, my parents are still having problems understanding each other. When my mother read my book, she said, "You mean it isn't just Daddy? I always thought he was the only one."

15. Understanding gender differences in ways of talking is the first step toward changing. Because some people do not know that people of the other gender have different ways of talking, people assume they are doing things right and their partners are doing things wrong. Then no one wants to change; if your partner is accusing you of wrong behavior, changing would be tantamount to admitting fault. But when they think of the differences as cross-cultural, people find that they and their partners are willing, even eager, to make small adjustments that will please their partners and improve the relationship.

Boston Globe, August 1990

Note on the author

Deborah Frances Tannen (born June 7, 1945) is an American academic and professor of linguistics

at Georgetown University in Washington, D.C.. She has been McGraw Distinguished Lecturer at Princeton University and was a fellow at the Center for Advanced Study in the Behavioral Sciences following a term in residence at the Institute for Advanced Study in Princeton, NJ.

Exercises

I. Understanding the text:

Fill in the blanks about the different patterns of communication between men and women based on the text.

| scenes different ways women: you ask for help, you get it men: to ask men: to admit ignorance, preserve his independence and girls: play in small groups or in pairs, enjoy and boys: play games in larger groups women: tells everything that happened during the day men: "Same old rat race." men: don't expect it, don't know how to do it and don't miss it when it isn't there |
|---|
| asking directions men: to ask men: to admit ignorance, preserve his independence and girls: play in small groups or in pairs, enjoy and boys: play games in larger groups men: talk is the essence of happened during the day men: don't expect it, don't know how to |
| childhood play girls: play in small groups or in pairs, enjoy and boys: play games in larger groups women: tells everything that happened during the day men: "Same old rat race." preserve his independence and bis independence and with preserve his independence and wowe language to boys: use language to women: talk is the essence of men: don't expect it, don't know how to |
| childhood play girls: play in small groups or in pairs, enjoy and boys: play games in larger groups women: tells everything that happened during the day men: "Same old rat race." girls: use language to boys: use language to women: talk is the essence of men: don't expect it, don't know how to |
| childhood play in pairs, enjoy and boys: use language to boys: use language to boys: use language to women: tells everything that happened during the day men: "Same old rat race." women: talk is the essence of men: don't expect it, don't know how to |
| childhood play in pairs, enjoy and boys: use language to boys: use language to boys: use language to women: tells everything that happened during the day men: "Same old rat race." women: talk is the essence of men: don't expect it, don't know how to |
| childhood play boys: play games in larger groups women: tells everything that happened during the day men: 'Same old rat race.' boys: use language to women: talk is the essence of men: don't expect it, don't know how to |
| boys: play games in larger groups women: tells everything that happened during the day men: "Same old rat race." women: talk is the essence of men: don't expect it, don't know how to |
| in larger groups women: tells everything that happened during the day men: 'Same old rat race.' men: don't expect it, don't know how to |
| home talk women: tells everything that happened during the day men: "Same old rat race." women: talk is the essence of men: don't expect it, don't know how to |
| home talk happened during the day men: "Same old rat race." men: don't expect it, don't know how to |
| home talk happened during the day men: "Same old rat race." men: don't expect it, don't know how to |
| men: "Same old rat race." men: don't expect it, don't know how to |
| 1 , |
| do it and don't miss it when it isn't there |
| |
| women: talk about a problem women: all they want is |
| trouble talk men: search for |
| men: do something to solve the problem |
| be concerned with |
| women: complain about their women: conversations are characterized |
| bosses by |
| complain about boss men: try to be helpful by They value stances. explaining men: more constructive to offer |
| |
| They valuestances. |
| men: tell the story to the women: talk to create |
| talk at a dinner party guests wonen. talk to create |
| about boss women: feel their husbands talk more in situations to show |
| hadn't been |

II. Reflecting and connecting

- 1. In the author's opinion, what specifically makes women and men hard to communicate? Do you agree with the author?
- 2. Can you give some examples where men and women cannot communicate? Is it because the same reason put forward by the author?
- 3. What is the suggestion from the author to improve men and women's communication? Do you think that is effective? Where possible, give some examples.

III. Accumulating vocabulary

- 1. Make a list of vocabulary (words and chunks) for talking about communication.
- 2. Make a 2-minute presentation about different ways of communication between men and women. Use the vocabulary you have listed.

TEXT B

The Meaning and Power of Smell

| 1. | T | he | sense | of | smell, | or | olfaction, | is | power | rful. |
|-----|-----|---------|--------------|------------|-------------|------------|-------------------|----------|------------|-------|
| (1) | | | | | | | | | For | the |
| mo | st | part, | however, | we breat | he in the | aromas | which surround | d us w | ithout be | eing |
| cor | ısc | iously | aware of | their imp | ortance to | us. It is | only when the | faculty | y of sme | ll is |
| im | pai | red fo | r some rea | son that v | ve begin to | realise | the essential rol | e the se | ense of sr | nell |
| pla | .ys | in our | smell of v | vell-being | Ţ . | | | | | |
| 2. | A | surv | ey conduc | ted by A | Anthony S | ynott at | Montreal's Co | oncordia | a Univer | sity |
| ask | ed | partic | cipants to c | comment | on how in | nportant | smell was to th | em in t | heir live | s. It |
| bec | can | ne app | arent that | smell can | evoke stro | ong emot | ional responses | . A scei | nt associa | ated |
| wit | h a | a good | l experienc | e can bri | ng a rush o | of joy, w | hile a foul odo | ur or on | ne associa | ated |
| wit | h | a bad | memory n | nay make | us grima | ce with | disgust. Respon | dents to | o the sur | vey |
| not | ted | that | many of | their olfa | action like | es and c | lislikes were b | ased of | n emotio | onal |
| ass | oc | iations | s. Such ass | ociations | can be pov | werful er | nough so that oc | dours th | at we wo | ould |
| ger | ner | ally la | abel unple | asant bec | come agree | eable, aı | nd those that v | ve wou | ld gener | ally |
| coı | ısi | der fra | ngrant beco | ome disaş | greeable fo | or partici | ılar individuals | . The p | erception | n of |
| sm | ell | , there | fore, cons | ists not o | nly of the | sensatio | n of the odours | themse | elves, bu | t of |
| the | ex | perier | nces and er | notions a | ssociated w | vith then | 1. | | | |
| 3. | (2 | 2) | | | | | | | · | |
| On | e r | espon | dent to the | survey be | elieved tha | t there is | no true emotio | nal bon | ding with | out |

touching and smelling a loved one. In fact, infants recognise the odours of their

mothers soon after birth and adults can often identify their children or spouses by scent. In one well-known test, women and men were able to distinguish by smell alone clothing worn by their marriage partners from similar clothing worn by other people. Most of the subjects would probably never have given much thought to odour as a cue for identifying family members before being involved in the test, but as the experiment revealed, even when not consciously considered, smells register.

| 4. |
|--|
| (3) |
| The reason often given for |
| the low regard in which smell is held is that, in comparison with its importance |
| among animals, the human sense of smell is feeble and undeveloped. While it is true |
| that the olfactory powers of humans are nothing like as fine as those possessed by |
| certain animals, they are still remarkably acute. Our noses are able to recognise |
| thousands of smells, and to perceive odours which are present only in extremely |
| small quantities. |
| 5. (4) |
| Odours, unlike colours, for instance, cannot be named in many languages because the |
| specific vocabulary simply doesn't exist. "It seems like", we have to say when |
| describing an odour, struggling to express our olfactory experience. Nor can odours |
| be recorded: there is no effective way to either capture or store them over time. In the |
| realm of olfactions, we must make do with descriptions and recollections. This has |
| implications for olfactory research. |
| 6. Most of the research on smell undertaken to date has been of a physical scientific |
| nature. (5) |
| |
| Researchers must still decide whether smell is one sense or twoone |
| responding to odours proper and the other registering odourless chemicals in the air. |
| Other unanswered questions are whether the nose is the only part of the body affected |
| by odours, and how smells can be measured objectively given the non-physical |

components. Questions like these mean that interest in the psychology of smell is inevitably set to play an increasingly important role for researchers.

7. However smell is not simply a biological and psychological phenomenon smell is cultural hence it is a social and historical phenomenon odours are invested with cultural values smells that are considered to be offensive in some cultures may be perfectly acceptable in others therefore our sense of smell is a means of and model for interacting with the world. Different smells can provide us with intimate and emotionally charged experiences and the value that we attach to these experiences is interiorised by the members of society in a deeply personal way. Importantly, our commonly held feelings about smells can help distinguish us from other cultures.

| (6) | | |
|-----|--|--|
| ` , | | |
| | | |

Exercises

I. Punctuate the following sentences underlined in the text.

However smell is not simply a biological and psychological phenomenon smell is cultural hence it is a social and historical phenomenon odours are invested with cultural values smells that are considered to be offensive in some cultures may be perfectly acceptable in others therefore our sense of smell is a means of and model for interacting with the world

II. Put the following sentences into their original places marked by the numbered blanks in the text

- A. In spite of its importance to our emotional and sensory lives, smell is probably the most undervalued sense in many cultures.
- B. Significant advances have been made in the understanding of the biological and chemical nature of olfaction, but many fundamental questions have yet to be answered.
- C. Odours affect us on a physical, psychological and science level.
- D. Odours are also essential clues in social bonding.
- E. The study of the cultural history of smell is, therefore, in a very real sense, an investigation into the essential of human culture.
- F. Smell, however, is a highly elusive phenomenon.

III. There are four words beneath each of the following sentences. Choose the one word which would best keep the meaning of the original sentence if it were substituted for the

underlined word.

| 1. It is only when the faculty of smell is <u>impaired</u> for some reason that we begin to realise the | | | | |
|---|-----------------------|---------------------|-----------------------------|--|
| essential role the sense of smell plays in our smell of well-being. | | | | |
| A. spoiled I | B. strengthened | C. repaired | D. restored | |
| 2. A scent associated with a good experience can bring a rush of joy, while a foul odour or one | | | | |
| associated with a bad mer | mory may make us grim | ace with disgust. | | |
| A. bitter | B. sour | C. awful | D. fragrant | |
| 3. Such associations car | n be powerful enough | so that odours that | at we would generally label | |
| unpleasant become agreeable. | | | | |
| A. uncomfortable I | B. pleasant | C. beautiful | D. memorable | |
| 4. In comparison with its importance among animals, the human sense of smell is <u>feeble</u> . | | | | |
| A. weak | B. advanced | C. variable | D. different | |
| 5. Smells that are considered to be offensive in some cultures may be perfectly acceptable in | | | | |
| others. | | | | |
| A. attractive I | B. evil | C. negative | D. distasteful | |
| | | | | |

TEXT C

- 1. The discovery that language can be a barrier to communication is quickly made by all who travel, study, govern or sell. Whether the activity is tourism, research, government, policing, business, or data dissemination, the lack of a common language can severely impede progress or can halt it altogether. 'Common language' here usually means a foreign language, but the same point applies in principle to any encounter with unfamiliar dialects or styles within a single language. 'They don't talk the same language' has a major metaphorical meaning alongside its literal one.
- 2. Although communication problems of this kind must happen thousands of times each day, very few become public knowledge. Publicity comes only when a failure to communicate has major consequences, such as strikes, lost orders, legal problems, or fatal accidents—even, at times, war. One reported instance of communication failure took place in 1970, when several Americans ate a species of poisonous mushroom. No remedy was known, and two of the people died within days. A radio report of the case was heard by a chemist who knew of a treatment that had been successfully used in 1959 and published in 1963. Why had the American doctors not heard of it seven years later? Presumably because the report of the treatment had been published only in journals written in European languages other than English.
- 3. Several comparable cases have been reported. But isolated examples do not give an impression of the size of the problem—something that can come only from studies of the use or avoidance of foreign-language materials and contacts in different communicative situations. In the English-speaking scientific world, for example, surveys of books and documents consulted in libraries and other information agencies

have shown that very little foreign-language material is ever consulted. Library requests in the field of science and technology showed that only 13 percent were for foreign language periodicals. Studies of the sources cited in publications lead to a similar conclusion: the use of foreign-language sources is often found to be as low as 10 percent.

- 4. The language barrier presents itself in stark form to firms who wish to market their products in other countries. British industry, in particular, has in recent decades often been criticized for its linguistic insularity—for its assumption that foreign buyers will be happy to communicate in English, and that awareness of other languages is not therefore a priority. In the 1960s, over two-thirds of British firms dealing with non-English-speaking customers were using English for outgoing correspondence; many had their sales literature only in English; and as many as 40 percent employed no one able to communicate in the customers' languages. A similar problem was identified in other English-speaking countries, notably the USA, Australia and New Zealand. And non-English-speaking countries were by no means exempt—although the widespread use of English as an alternative language made them less open to the change of insularity.
- 5. The criticism and publicity given to this problem since the 1960s seems to have greatly improved the situation. Industrial training schemes have promoted an increase in linguistic and cultural awareness. Many firms now have their own translation services; to take just one example in Britain, Rowntree Mackintosh now publish their documents in six languages (English, French, German, Dutch, Italian and Xhosa). Some firms run part-time language courses in the languages of the countries with which they are most involved; some produce their own technical glossaries, to ensure consistency when material is being translated. It is now much more readily appreciated that marketing efforts can be delayed, damaged, or disrupted by a failure to take account of the linguistic needs of the customer.
- 6. The changes in awareness have been most marked in English-speaking countries, where the realization has gradually dawned that by no means everyone in the world

knows English well enough to negotiate in it. This is especially a problem when English is not an official language of public administration, as in most parts of the Far East, Russia, Eastern Europe, the Arab world, Latin America and French-speaking Africa. Even in cases where foreign customers can speak English quite well, it is often forgotten that they may not be able to understand it to the required level—bearing in mind the regional and social variation which permeates speech and which can cause major problems of listening comprehension. In securing understanding, how 'we' speak to 'them' is just as important, it appears, as how 'they' speak' to 'us'.

Unit 6 Novel

TEXT A

The Story of an Hour

Kate Chopin

- 1. Knowing that Mrs. Mallard was afflicted with a heart trouble, great care was taken to break to her as gently as possible the news of her husband's death.
- 2. It was her sister Josephine who told her, in broken sentences; veiled hints that revealed in half concealing. Her husband's friend Richards was there, too, near her. It was he who had been in the newspaper office when intelligence of the railroad disaster was received, with Brently Mallard's name leading the list of "killed." He had only taken the time to assure himself of its truth by a second telegram, and had hastened to forestall any less careful, less tender friend in bearing the sad message.
- 3. She did not hear the story as many women have heard the same, with a paralyzed inability to accept its significance. She wept at once, with sudden, wild abandonment, in her sister's arms. When the storm of grief had spent itself she went away to her room alone. She would have no one follow her.

- 4. There stood, facing the open window, a comfortable, roomy armchair. Into this she sank, pressed down by a physical exhaustion that haunted her body and seemed to reach into her soul.
- 5. She could see in the open square before her house the tops of trees that were all aquiver with the new spring life. The delicious breath of rain was in the air. In the street below a peddler was crying his wares. The notes of a distant song which some one was singing reached her faintly, and countless sparrows were twittering in the eaves.
- 6. There were patches of blue sky showing here and there through the clouds that had met and piled one above the other in the west facing her window.
- 7. She sat with her head thrown back upon the cushion of the chair, quite motionless, except when a sob came up into her throat and shook her, as a child who has cried itself to sleep continues to sob in its dreams.
- 8. She was young, with a fair, calm face, whose lines bespoke repression and even a certain strength. But now there was a dull stare in her eyes, whose gaze was fixed away off yonder on one of those patches of blue sky. It was not a glance of reflection, but rather indicated a suspension of intelligent thought.
- 9. There was something coming to her and she was waiting for it, fearfully. What was it? She did not know; it was too subtle and elusive to name. But she felt it, creeping out of the sky, reaching toward her through the sounds, the scents, the color that filled the air.
- 10. Now her bosom rose and fell tumultuously. She was beginning to recognize this thing that was approaching to possess her, and she was striving to beat it back with her will----as powerless as her two white slender hands would have been.
- 11. When she abandoned herself, a little whispered word escaped her slightly parted lips. She said it over and over under her breath: "free, free, free!" The vacant stare and the look of terror that had followed it went from her eyes. They stayed keen

and bright. Her pulses beat fast, and the coursing blood warmed and relaxed every inch of her body.

- 12. She did not stop to ask if it were or were not a monstrous joy that held her. A clear and exalted perception enabled her to dismiss the suggestion as trivial.
- 13. She knew that she would weep again when she saw the kind, tender hands folded in death; the face that had never looked save with love upon her, fixed and gray and dead. But she saw beyond that bitter moment a long procession of years to come that would belong to her absolutely. And she opened and spread her arms out to them in welcome.
- 14. There would be no one to live for during those coming years; she would live for herself. There would be no powerful will bending hers in that blind persistence with which men and women believe they have a right to impose a private will upon a fellow creature. A kind intention or a cruel intention made the act seem no less a crime as she looked upon it in that brief moment of illumination.
- 15. And yet she had loved him----sometimes. Often she had not. What did it matter! What could love, the unsolved mystery, count for in face of this possession of self-assertion which she suddenly recognized as the strongest impulse of her being!
- 16. "Free! Body and soul free!" she kept whispering.
- 17. Josephine was kneeling before the closed door with her lips to the keyhole, imploring for admission. "Louise, open the door! I beg, open the door----you will make yourself ill. What are you doing Louise? For heaven's sake open the door."
- 18. "Go away. I am not making myself ill." No; she was drinking in a very elixir of life through that open window.
- 19. Her fancy was running riot along those days ahead of her. Spring days, and summer days, and all sorts of days that would be her own. She breathed a quick prayer that life might be long. It was only yesterday she had thought with a shudder that life might be long.

- 20. She arose at length and opened the door to her sister's importunities. There was a feverish triumph in her eyes, and she carried herself unwittingly like a goddess of Victory. She clasped her sister's waist, and together they descended the stairs. Richards stood waiting for them at the bottom.
- 21. Some one was opening the front door with a latchkey. It was Brently Mallard who entered, a little travel-stained, composedly carrying his grip-sack and umbrella. He had been far from the scene of accident, and did not even know there had been one. He stood amazed at Josephine's piercing cry; at Richards' quick motion to screen him from the view of his wife. But Richards was too late.
- 22. When the doctors came they said she had died of heart disease----of joy that kills.

Note on the author

Kate Chopin (February 8, 1850 – August 22, 1904) was an American author of short stories and novels, mostly of a Louisiana Creole background. Kate Chopin went beyond Maupassant's technique and style and gave her writing a flavor of its own. She had an ability to perceive life and put it down on paper creatively. She put much concentration and emphasis on women's lives and their continual struggles to create an identity of their own within the boundaries of the patriarchy. Through her stories, Kate Chopin wrote her own autobiography and documented her surroundings; she lived in a time when her surroundings included the abolitionist movements and the emergence of feminism. Her ideas and descriptions were not true word for word, yet there was an element of nonfiction lingering throughout each story.

Exercises

I. Answer the following questions.

- 1. Why does the author turn from the depiction of Mrs. Mallard's mental activities to the description of natural scene in paragraph 5 and paragraph 6?
- 2. What thought had made Mrs. Mallard's "dull stare" (Paragraph 8) become "keen and bright" (Paragraph 11)?
- 3. "She breathed a quick prayer that life might be long. It was only yesterday she had thought with a shudder that life might be long." (Paragraph 19) What thought had caused the change of Mrs.

Mallard's attitude?

- 4. "When the doctors came they said she had died of heart disease of joy that kills." What do you think of the doctor's diagnosis?
- 5. Did Brently Mallard abuse his wife? Did he love her? Did he love her? Did she love him? Exactly why was she so relieved to be rid of him? Can you answer any of these questions with certainty?
- 6. What is the conflict that causes the story to happen? Conflict between husband and wife? Or conflict between women and the institution of marriage?
- 7. Chopin uses irony, a technique that reveals the distance between what appears to be true and what is actually true, to conclude her story. This type of irony is called dramatic irony. Dramatic irony occurs when the audience knows something that the characters don't.

Try to analyze how irony is used throughout the story.

impose

haunt

8. The story takes place in an American home in the last decade of the 19th Century. Women had no rights in 1894, when the story was published. Try to figure out what the theme of the story is considering the situation of women's position in the society at that time.

II. Fill in each of the blanks in the following sentences with a word in the following box. Each word could be used once only. Change the forms where necessary.

intent

assure

forestall

keen

afflict

elusive

| | _ |
|--|--------------------------------------|
| 1. They may grant you power, honour, and riches but | you with servitude, infamy |
| and poverty. | |
| 2. Large numbers of police were in the square to | any demonstrations. |
| 3. The thought of being a loser is likely to | him for the rest of his life. |
| 4. The harder researchers looked for the explanation | on of the genetic problem, the more |
| it appeared. | |
| 5. Parents should beware of their own task | tes on their children. |
| 6. The candidate made many commitments in the | e election campaign with very little |
| of carrying them out. | |
| 7. I you I will use whatever means necess | ary to fulfill my promise. |
| 8 Though Brand was only an amateur artist, he has a | eve for color and details |

TEXT B

- 1. When I was seven, my parents gave me a doll, a doll's house, and a book, The Arabian Nights, which came wrapped in red tissue paper which I used as a book cover. I was just getting ready to read when my mother walked into my room.
- 2. "Isn't your doll beautiful?" my mother asked. I looked at the doll—I'll have to call her "she" because I never gave her a name. She was a fair celluloid creature with blue eyes that matched her ruffled dress. I puckered my lips and raised my eyebrows, not really knowing how to let my mother down easily.
- 3. "This doll is different," my mother explained, trying to talk me into playing with it. "She says 'Mommy."
- 4. The noise She made sounded more like a cat's cries than a baby's babbles. Thinking that doll needed love, I hugged her tightly for a long time. Useless, I said to myself finally. I decided to play with the doll's house. But since rearranging the tiny furniture seemed to be the only activity possible, I lost interest. I caught sight again of the third of my gifts, The Arabian Nights, and I began to read it. From that moment, the book was my constant companion.
- 5. Every day, after doing my homework, I climbed our gurva tree. Nestled among its branches, I read and reread the stories in The Arabian Nights to my heart's content. My mother became concerned as she noticed that I wasn't playing with either the doll or the little house. She wouldn't have dreamed of asking me to give up my reading session, but she began to insist that I take the doll up the tree with me.
- 6. Trying to read on a branch fifteen feet off the ground while holding on to the silly doll was not easy. After nearly falling off twice, I devised a way to please my mother

and keep my neck intact. I tied one end of a long vine around the doll's neck and the opposite one around the branch. This way I could let the doll hang in midair while I read. I always looked out for my mother, though. I sensed that my playing with the doll was of great importance to her. So every time I heard her coming, I lifted the doll up and hugged her. The smile in my mother's eyes told me my plan worked.

- 7. The inevitable happened one afternoon. Totally absorbed in the reading, I didn't hear my mother calling me. When I looked down, I saw my mother staring at the hanging doll. Fearing the worst of scoldings, I climbed down in a flash, reaching the ground just as my mother was untying the doll. To my surprise, she didn't scold. She kept on staring at the doll, then she glanced at me.
- 8. The next day, my father came home early and suggested that he and I play with the doll's house. Soon I was bored, but my father seemed to be having so much fun I didn't have the heart to tell him. Quietly I slipped out, picking up my book on my way to the yard. Absorbed as he was in arranging and rearranging the tiny furniture, she didn't notice my quick exit.
- 9. Almost 20 years passed before I found out why the hanging-doll episode had been so significant for my parents. By then I was a parent myself. After recounting the episode amid my father's and my mother, my mother confessed that all those years she had been afraid I would turn out to be an unnatural mother. She was delighted that I had turned out to be a most loving and understanding mother to my son.
- 10. My mother often recalls the incident of the hanging doll and thanks God aloud for making me a good parent. Then she sighs as she inventories my vicissitudes in life, pointing out that with my education I might have been a rich dentist instead of a poor poet. I look back at the same childhood incident, recall my third gift, the book in red tissue paper, and I, too, take inventory of the experiences that have made me who and what I am. I pause to marvel at life's wondrous ironies.

Exercises

A

I. Match the definitions in Column B with the italicized words in Column A.

1. babble A. unavoidable

2. constant B. talking in a confused or excited way

3. intact C. an event or a short period of time that it is important or unusual

4. inevitable D. admit, acknowledge

5. scold E. complete and has not been damaged

6. slip7. episode6. slip6. be amazed at

8. confess H. speak angrily to someone because he has done something wrong 9. recall I. continually recurring, continuing without interruption, permanent

10. marvel J. move quickly and quietly

II. Decide whether the following statements are true or false.

1. The author hung the doll in midair in order to play with it.

- 2. The hanging doll episode demonstrates that the author is not sympathetic in nature.
- 3. The author's parents tried to use cajolery and play to influence her.
- 4. Finally after 20 years, the family looked back on the doll incident as humorous.
- 5. From the last paragraph, we may conclude that the mother thinks the author's achievements are unsatisfactory.

III. Answer the following questions.

- 1. Which gift do you think is better for a 7-year-old girl, a doll or a book?
- 2. How do you understand the "ironies" referred to at the end of the passage?
- 3. What strategies do you think parents should use to influence their children?

TEXT C

This passage is adapted from a novel written by a woman in 1899. The novel was banned in many places because of its unconventional point of view.

It was eleven o'clock that night when Mr. Pontellier returned from his night out. He was in an excellent humor, in high spirits, and very talkative. His entrance awoke his wife, who was in bed and fast asleep when he came in. He talked to her while he undressed, telling her anecdotes and bits of news and gossip that he had gathered during the day. She was overcome with sleep, and answered him with little half utterances.

He thought it very discouraging that his wife, who was the sole object of his existence, evinced so little interest in things which concerned him and valued so little his conversation.

Mr. Pontellier had forgotten the bonbons and peanuts that he had promised the boys. Notwithstanding, he loved them very much and went into the adjoining room where they slept to take a look at them and make sure that they were resting comfortably. The result of his investigation was far from satisfactory. He turned and shifted the youngsters about in bed. One of them began to kick and talk about a basket full of crabs.

Mr. Pontellier returned to his wife with the information that Raoul had a high fever and needed looking after. Then he lit his cigar and went and sat near the open door to smoke it.

Mrs. Pontellier was quite sure Raoul had no fever. He had gone to bed perfectly well, she said, and nothing had ailed him all day. Mr. Pontellier was too well

acquainted with fever symptoms to be mistaken. He assured her the child was burning with fever at that moment in the next room.

He reproached his wife with her inattention, her habitual neglect of the children. If it was not a mother's place to look after children, whose on earth was it? He himself had his hands full with his brokerage business. He could not be in two places at once; making a living for his family on the street, and staying home to see that no harm befell them. He talked in a monotonous, insistent way.

Mrs. Pontellier sprang out of bed and went into the next room. She soon came back and sat on the edge of the bed, leaning her head down on the pillow. She said nothing, and refused to answer her husband when he questioned her. When his cigar was smoked out he went to bed, and in half a minute was fast asleep.

Mrs. Pontellier was by that time thoroughly awake. She began to cry a little, and wiped her eyes on the sleeve of her nightgown. She went out on the porch, where she sat down in the wicker chair and began to rock gently to and fro.

It was then past midnight. The cottages were all dark. There was no sound abroad except the hooting of an old owl and the everlasting voice of the sea, that broke like a mournful lullaby upon the night.

The tears came so fast to Mrs. Pontellier's eyes that the damp sleeve of her nightgown no longer served to dry them. She went on crying there, not caring any longer to dry her face, her eyes, her arms. She could not have told why she was crying. Such experiences as the foregoing were not uncommon in her married life. They seemed never before to have weighed much against the abundance of her husband's kindness and a uniform devotion which had come to be tacit and self-understood.

An indescribable oppression, which seemed to generate in some unfamiliar part of her consciousness, filled her whole being with a vague anguish. It was like a shadow, like a mist passing across her soul's summer day. It was strange and unfamiliar; it was a mood. She did not sit there inwardly upbraiding her husband,

lamenting at Fate, which had directed her footsteps to the path which they had taken. She was just having a good cry all to herself. The mosquitoes succeeded in dispelling a mood which might have held her there in the darkness half a night longer.

The following morning Mr. Pontellier was up in good time to take the carriage which was to convey him to the steamer at the wharf. He was returning to the city to his business, and they would not see him again at the Island till the coming Saturday. He had regained his composure, which seemed to have been somewhat impaired the night before. He was eager to be gone, as he looked forward to a lively week in the financial center.

Unit 7 Science

TEXT A

The Scientific Method

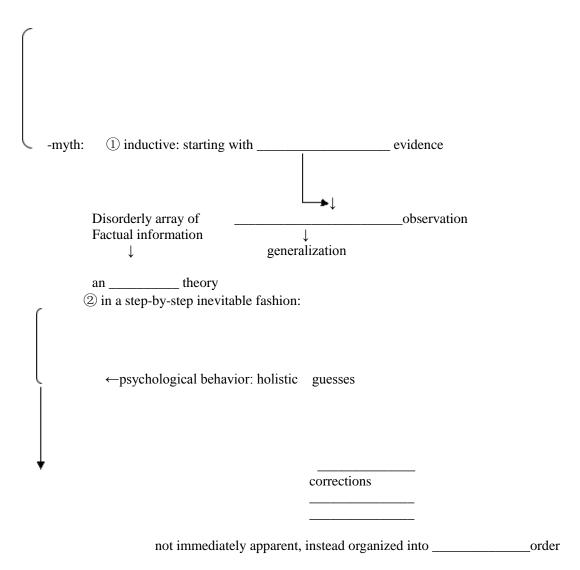
- 1. 'Hypotheses,' said Medawar in 1964, 'are imaginative and inspirational in character'; they are 'adventures of the mind'. He was arguing in favour of the position taken by Karl Popper in The Logic of Scientific Discovery (1972, 3rd edition) that the nature of scientific method is hypothetico-deductive and not, as is generally believed, inductive.
- 2. It is essential that you, as an intending researcher, understand the difference between these two interpretations of the research process so that you do not become discouraged or begin to suffer from a feeling of 'cheating' or not going about it the right way.
- 3. The myth of scientific method is that it is inductive: that the formulation of scientific theory starts with the basic, raw evidence of the senses simple, unbiased, unprejudiced observation. Out of these sensory data commonly referred to as 'facts' -- generalisations will form. The myth is that from a disorderly array of factual information an orderly, relevant theory will somehow emerge. However, the starting point of induction is an impossible one.
- 4. There is no such thing as an unbiased observation. Every act of observation we make is a function of what we have seen or otherwise experienced in the past. All

scientific work of an experimental or exploratory nature starts with some expectation about the outcome. This expectation is a hypothesis. Hypotheses provide the initiative and incentive for the inquiry and influence the method. It is in the light of an expectation that some observations are held to be relevant and some irrelevant, that one methodology is chosen and others discarded, that some experiments are conducted and others are not. Where is your naive, pure and objective researcher now?

- 5. Hypotheses arise by guesswork, or by inspiration, but having been formulated they can and must be tested rigorously, using the appropriate methodology. If the predictions you make as a result of deducing certain consequences from your hypothesis are not shown to be correct then you discard or modify your hypothesis. If the predictions turn out to be correct then your hypothesis has been supported and may be retained until such time as some further test shows it not to be correct. Once you have arrived at your hypothesis, which is a product of your imagination, you then proceed to a strictly logical and rigorous process, based upon deductive argument hence the term 'hypothetico-deductive'.
- 6. So don't worry if you have some idea of what your results will tell you before you even begin to collect data; there are no scientists in existence who really wait until they have all the evidence in front of them before they try to work out what it might possibly mean. The closest we ever get to this situation is when something happens by accident; but even then the researcher has to formulate a hypothesis to be tested before being sure that, for example, a mould might prove to be a successful antidote to bacterial infection.
- 7. The myth of scientific method is not only that it is inductive (which we have seen is incorrect) but also that the hypothetico-deductive method proceeds in a step-by-step, inevitable fashion. The hypothetico-deductive method describes the logical approach to much research work, but it does not describe the psychological behaviour that brings it about. This is much more holistic involving guesses, reworkings, corrections, blind alleys and above all inspiration, in the deductive as

well as the hypothetic component - than is immediately apparent from reading the final thesis or published papers. These have been, quite properly, organised into a more serial, logical order so that the worth of the output may be evaluated independently of the behavioural processes by which it was obtained. It is the difference, for example between the academic papers with which Crick and Watson demonstrated the structure of the DNA molecule and the fascinating book The Double Helix in which Watson (1968) described how they did it. From this point of view, 'scientific method' may more usefully be thought of as a way of writing up research rather than as a way of carrying it out.

Exercises



II. Answer questions.

- 1. In which TWO paragraphs does the writer give advice directly to the reader?
- 2. Which of the following statements best describes the writer's main purpose?
- A to advise Ph.D students not to cheat while carrying out research
- B to encourage Ph.D students to work by guesswork and inspiration
- C to explain to Ph.D students the logic which the scientific research paper follows
- D to help Ph.D students by explaining different conceptions of the research process

The Birth of Scientific English

- 1. World science is dominated today by a small number of languages, including Japanese, German and French, but it is English which is probably the most popular global language of science. This is not just because of the importance of English-speaking countries such as the USA in scientific research; the scientists of many non-English-speaking countries find that they need to write their research papers in English to reach a wide international audience. Given the prominence of scientific English today, it may seem surprising that no one really knew how to write science in English before the 17th century. Before that, Latin was regarded as the lingua franca for European intellectuals.
- 2. The European Renaissance (c. 14th-16th century) is sometimes called the 'revival of learning', a time of renewed interest in the 'lost knowledge' of classical times. At the same time, however, scholars also began to test and extend this knowledge. The emergent nation states of Europe developed competitive interests in world exploration and the development of trade. Such expansion, which was to take the English language west to America and east to India, was supported by scientific developments such as the discovery of magnetism (and hence the invention of the compass), improvements in cartography and perhaps the most important scientific revolution of them all the new theories of astronomy and the movement of the Earth in relation to the planets and stars, developed by Copernicus (1473-1543).

- 3. England was one of the first countries where scientists adopted and publicised Copernican ideas with enthusiasm. Some of these scholars, including two with interests in language-John Wallis and John Wilkins helped found the Royal Society in 1660 in order to promote empirical scientific research.
- 4. Across Europe similar academies and societies arose, creating new national traditions of science. In the initial stages of the scientific revolution, most publications in the national languages were popular works, encyclopaedias, educational textbooks and translations. Original science was not done in English until the second half of the 17th century. For example, Newton published his mathematical treatise, known as the Principia, in Latin, but published his later work on the properties of light Opticks in English.
- 5. There were several reasons why original science continued to be written in Latin. The first was simply a matter of audience. Latin was suitable for an international audience of scholars, whereas English reached a socially wider, but more local, audience. Hence, popular science was written in English.
- 6. A second reason for writing in Latin may, perversely, have been a concern for secrecy. Open publication had dangers in putting into the public domain preliminary ideas which had not yet been fully exploited by their 'author'. This growing concern about intellectual property rights was a feature of the period it reflected both the humanist notion of the individual, rational scientist who invents and discovers through private intellectual labour, and the growing connection between original science and commercial exploitation. There was something of a social distinction between 'scholars and gentlemen' who understood Latin, and men of trade who lacked a classical education. And in the mid-17th century it was common practice for mathematicians to keep their discoveries and proofs secret, by writing them in cipher, in obscure languages, or in private messages deposited in a sealed box with the Royal Society. Some scientists might have felt more comfortable with Latin precisely because its audience, though international, was socially restricted. Doctors clung the most keenly to Latin as an 'insider language'.

- 7. A third reason why the writing of original science in English was delayed may have been to do with the linguistic inadequacy of English in the early modern period. English was not well equipped to deal with scientific argument. First, it lacked the necessary technical vocabulary. Second, it lacked the grammatical resources required to represent the world in an objective and impersonal way, and to discuss the relations, such as cause and effect, that might hold between complex and hypothetical entities.
- 8. Fortunately, several members of the Royal Society possessed an interest in language and became engaged in various linguistic projects. Although a proposal in 1664 to establish a committee for improving the English language came to little, the society's members did a great deal to foster the publication of science in English and to encourage the development of a suitable writing style. Many members of the Royal Society also published monographs in English. One of the first was by Robert Hooke, the society's first curator of experiments, who described his experiments with microscopes in Micrographia (1665). This work is largely narrative in style, based on a transcript of oral demonstrations and lectures.
- 9. In 1665 a new scientific journal, Philosophical Transactions, was inaugurated. Perhaps the first international English-language scientific journal, it encouraged a new genre of scientific writing, that of short, focused accounts of particular experiments.
- 10. The 17th century was thus a formative period in the establishment of scientific English. In the following century much of this momentum was lost as German established itself as the leading European language of science. It is estimated that by the end of the 18th century 401 German scientific journals had been established as opposed to 96 in France and 50 in England. However, in the 19th century scientific English again enjoyed substantial lexical growth as the industrial revolution created the need for new technical vocabulary, and new, specialised, professional societies were instituted to promote and publish in the new disciplines.

Exercises

In Europe, modern science emerged at the same time as the nation state. At first, the scientific language of choice remained ______. It allowed scientists to communicate with other socially privileged thinkers while protecting their work from unwanted exploitation. Sometimes the desire to protect ideas seems to have been stronger than the desire to communicate them, particularly in the case of mathematicians and ______. In Britain, moreover, scientists worried that English had neither the ______ nor the _____ to express their ideas, This situation only changed after 1660 when scientists associated with the _____ set about developing English, An early scientific journal fostered a new kind of writing based on short descriptions of specific experiments. Although English was then overtaken by ______, it developed again in the 19th century as a direct result of the _____.

II. Imitation: Try to analyze the development of the Chinese language and its status in the global context. Practice the hypothetico-deductive method learned in the former article. Make your own judgment: whether the Chinese language will become a lingua franca in the academic area.

TEXT C

Infantile Amnesia

- 1. What do you remember about your life before you were three? Few people can remember anything that happened to them in their early years. Adults' memories of the next few years also tend to be scanty. Most people remember only a few events—usually ones that were meaningful and distinctive, such as being hospitalized or a sibling's birth.
- 2. How might this inability to recall early experiences be explained? The sheer passage of time does not account for it; adults have excellent recognition of pictures of people who attended high school with them 35 years earlier. Another seemingly plausible explanation—that infants do not form enduring memories at this point in development—also is incorrect. Children two and a half month olds remember some events a year later. Nor does the hypothesis that infantile amnesia reflects repression—or holding back—of sexuality charged episodes explain the phenomenon.

While such repression may occur, people cannot remember ordinary events from the infant and toddler periods, either.

3. Three other explanations seem more promising. One involves physiological changes relevant to memory. Maturation of the frontal lobes of the brain continues throughout early childhood, and this part of the brain may be critical for remembering particular episodes in ways that can be retrieved later. Demonstrations of infants' and toddlers' long-term memory have involved their repeating motor activities that they

had seen or done earlier, such as reaching in the dark for objects, putting a bottle in a doll's mouth, or pulling apart two pieces of a toy. The brain's level of physiological maturation may support these types of memories, but not ones requiring explicit verbal descriptions.

- 4. A second explanation involves the influence of the social world on children's language use. Hearing and telling stories about events may help children store information in ways that will endure into later childhood and adulthood. Through hearing stories with a clear beginning, middle, and ending, children may learn to extract the gist of events in ways that they will be able to describe many years later. Consistent with this view, parents and children increasingly engage in discussions of past events when children are about three years old. However, hearing such stories is not sufficient for younger children to form enduring memories. Telling such stories to two year olds does not seem to produce long-lasting verbalizable memories.
- 5. A third likely explanation for infantile amnesia involves incompatibilities between the ways in which infants encode information and the ways in which older children and adults retrieve it. Whether people can remember an event depends critically on the fit between the way in which they earlier encoded the information and the way in which they later attempt to retrieve it. The better able the person is to reconstruct the perspective from which the material was encoded, the more likely that recall will be successful.
- 6. This view is supported by a variety of factors that can create mismatches between very young children's encoding and older children's and adults' retrieval efforts. The world looks very different to a person whose head is only two or three feet above the ground than to one whose head is five or six feet above it. Older children and adults often try to retrieve the names of things they saw, but infants would not have encoded the information verbally. General knowledge of categories of events such as a birthday party or a visit to the doctor's office helps older individuals encode their experiences, but again, infants and toddlers are unlikely to encode many experiences within such knowledge structures.

7. These three explanations of infantile amnesia are not mutually exclusive; indeed, they support each other. Physiological immaturity may be part of why infants and toddlers do not form extremely enduring memories, even when they hear stories that promote such remembering in preschoolers. Hearing the stories may lead preschoolers to encode aspects of events that allow them to form memories they can access as adults. Conversely, improved encoding of what they hear may help them better understand and remember stories and thus make the stories more useful for remembering future events. Thus, all three explanations—physiological maturation, hearing and producing stories about past events, and improved encoding of key aspects of events—seem likely to be involved in overcoming infantile amnesia.

Unit 8 Cyberspace

TEXT A

The Price of Shame

Monica Lewinsky

- 1. In 1998, I lost my reputation and my dignity. I lost almost everything, and I almost lost my life. Let me paint a picture for you. It is September of 1998. I'm sitting in a windowless office room inside the Office of the Independent Counsel underneath humming fluorescent lights. I'm listening to the sound of my voice, my voice on surreptitiously taped phone calls that a supposed friend had made the year before. For the past eight months, the mysterious content of these tapes has hung like the Sword of Damocles over my head. A few days later, the Starr Report is released to Congress, and all of those tapes and transcripts, those stolen words, form a part of it. That people can read the transcripts is horrific enough, but a few weeks later, the audio tapes are aired on TV, and significant portions made available online. The public humiliation was excruciating. Life was almost unbearable.
- 2. This was not something that happened with regularity back then in 1998, and by this, I mean the stealing of people's private words, actions, conversations or photos, and then making them public—public without consent, public without context, and public without compassion.

- 3. Fast forward 12 years to 2010, and now social media has been born. The landscape has sadly become much more populated with instances like mine, whether or not someone actually make a mistake, and now it's for both public and private people. The consequences for some have become dire, very dire.
- 4. I was on the phone with my mom in September of 2010, and we were talking about the news of a young college freshman from Rutgers University named Tyler Clementi. Sweet, sensitive, creative Tyler was secretly webcammed by his roommate while being intimate with another man. When the online world learned of this incident, the ridicule and cyberbullying ignited. A few days later, Tyler jumped from the George Washington Bridge to his death. He was 18.
- 5. My mom was beside herself about what happened to Tyler and his family, and she was gutted with pain in a way that I just couldn't quite understand, and then eventually I realized she was reliving 1998, reliving a time when she sat by my bed every night, reliving a time when she made me shower with the bathroom door open, and reliving a time when both of my parents feared that I would be humiliated to death, literally.
- 6. Today, too many parents haven't had the chance to step in and rescue their loved ones. Too many have learned of their child's suffering and humiliation after it was too late. Tyler's tragic, senseless death was a turning point for me. It served to recontextualize my experiences, and I then began to look at the world of humiliation and bullying around me and see something different. In 1998, we had no way of knowing where this brave new technology called the Internet would take us. Since then, it has connected people in unimaginable ways, joining lost siblings, saving lives, launching revolutions, but the darkness, cyberbullying, and slut-shaming that I experienced had mushroomed. Every day online, people, especially young people who are not developmentally equipped to handle this, are so abused and humiliated that they can't imagine living to the next day, and some, tragically, don't, and there's nothing virtual about that. ChildLine, a U.K. nonprofit that's focused on helping young people on various issues, released a staggering statistic late last year: From

2012 to 2013, there was an 87 percent increase in calls and emails related to cyberbullying. A meta-analysis done out of the Netherlands showed that for the first time, cyberbullying was leading to suicidal ideations more significantly than offline bullying. And you know what shocked me, although it shouldn't have, was other research last year that determined humiliation was a more intensely felt emotion than either happiness or even anger.

- 7. Cruelty to others is nothing new, but online, technologically enhanced shaming is amplified, uncontained, and permanently accessible. The echo of embarrassment used to extend only as far as your family, village, school or community, but now it's the online community too. Millions of people, often anonymously, can stab you with their words, and that's a lot of pain, and there are no perimeters around how many people can publicly observe you and put you in a public stockade. There is a very personal price to public humiliation, and the growth of the Internet has jacked up that price.
- 8. For nearly two decades now, we have slowly been sowing the seeds of shame and public humiliation in our cultural soil, both on- and offline. Gossip websites, paparazzi, reality programming, politics, news outlets and sometimes hackers all traffic in shame. It's led to desensitization and a permissive environment online which lends itself to trolling, invasion of privacy, and cyberbullying. This shift has created what Professor Nicolaus Mills calls a culture of humiliation. Consider a few prominent examples just from the past six months alone. Jennifer Lawrence and several other actors had their iCloud accounts hacked, and private, intimate, nude photos were plastered across the Internet without their permission. One gossip website had over five million hits for this one story. And what about the Sony Pictures cyberhacking? The documents which received the most attention were private emails that had maximum public embarrassment value.
- 9. But in this culture of humiliation, there is another kind of price tag attached to public shaming. The price does not measure the cost to the victim, which Tyler and too many others, notably women, minorities, and members of the LGBTQ

community have paid, but the price measures the profit of those who prey on them. This invasion of others is a raw material, efficiently and ruthlessly mined, packaged and sold at a profit. A marketplace has emerged where public humiliation is a commodity and shame is an industry. How is the money made? Clicks. The more shame, the more clicks. The more clicks, the more advertising dollars. We're in a dangerous cycle. The more we click on this kind of gossip, the more numb we get to the human lives behind it, and the more numb we get, the more we click. All the while, someone is making money off of the back of someone else's suffering. With every click, we make a choice. The more we saturate our culture with public shaming, the more accepted it is, the more we will see behavior like cyberbullying, trolling, some forms of hacking, and online harassment. Why? Because they all have humiliation at their cores. This behavior is a symptom of the culture we've created. Just think about it.

- 10. Changing behavior begins with evolving beliefs. We've seen that to be true with racism, homophobia, and plenty of other biases, today and in the past. As we've changed beliefs about same-sex marriage, more people have been offered equal freedoms. When we began valuing sustainability, more people began to recycle. So as far as our culture of humiliation goes, what we need is a cultural revolution. Public shaming as a blood sport has to stop, and it's time for an intervention on the Internet and in our culture.
- 11. The shift begins with something simple, but it's not easy. We need to return to a long-held value of compassion—compassion and empathy. Online, we've got a compassion deficit, an empathy crisis.
- 12. Researcher Brené Brown said, and I quote, "Shame can't survive empathy." Shame cannot survive empathy. I've seen some very dark days in my life, and it was the compassion and empathy from my family, friends, professionals, and sometimes even strangers that saved me. Even empathy from one person can make a difference. The theory of minority influence, proposed by social psychologist Serge Moscovici, says that even in small numbers, when there's consistency over time, change can

happen. In the online world, we can foster minority influence by becoming upstanders. To become an upstander means instead of bystander apathy, we can post a positive comment for someone or report a bullying situation. Trust me, compassionate comments help abate the negativity.

13. We talk a lot about our right to freedom of expression, but we need to talk more about our responsibility to freedom of expression. We all want to be heard, but let's acknowledge the difference between speaking up with intention and speaking up for attention. The Internet is the superhighway for the id, but online, showing empathy to others benefits us all and helps create a safer and better world. We need to communicate online with compassion, consume news with compassion, and click with compassion.

14. It's also not just about saving myself. Anyone who is suffering from shame and public humiliation needs to know one thing: You can survive it. I know it's hard. It may not be painless, quick or easy, but you can insist on a different ending to your story. Have compassion for yourself. We all deserve compassion, and to live both online and off in a more compassionate world.

(adapted from Monica Lewinsky 的TED 演讲: http://www.ted.com/talks/monica lewinsky the price of shame/transcript?language=en)

Background Information

After becoming the focus of the history-changing federal investigation into her private life, Monica Lewinsky found herself, at 24 years old, one of the first targets of a "culture of humiliation": a now-familiar cycle of media, political and personal harassment—particularly online.

She tried public appearances. She tried being reclusive. She tried leaving the country, and she tried finding a job. But the epic humiliation of 1998, when her affair with Bill Clinton became an all-consuming story, has followed Monica Lewinsky every day. After 10 years of self-imposed reticence, and now hoping to help victims of Internet shaming, she critiques the culture that put a 24-year-old through the wringer and calls out the feminists who joined the chorus.

Exercises

I. Blank Filling

Scan the text and fill in the table with the information about the victims of cyberbullying mentioned. And offer one more example of cyberbullying you know.

| | Monica | Tyler | Jennifer | Others |
|---------------|--------|-------|----------|--------|
| Time of being | | | | |
| bullied | | | | |
| Reason | | | | |
| Result | | | | |

II. Critical Thinking:

- 1. Can you make a guess of the meaning of "the Sword of Damocles" from the context? Do you know the original story of it?
- 2. Do you think it reasonable and acceptable to make people's private words, actions, conversations or photos public—"public without consent, public without context, and public without compassion"?
- 3. In Paragraph 6, the author claims: "Tyler's tragic, senseless death was a turning point for me." Do you agree with her?
- 4. Why does the author say "There is a very personal price to public humiliation, and the growth of the Internet has jacked up that price" in Paragraph 7? What does the "personal price" mean? Can you explain it in your own words?
- 5. According to the author, what is the real reason behind cyberbullying? And have you ever cyberbullied others in this sense?
- 6. This speech is centered around a newly arising topic—cyberbullying. After reading this speech, can you give a definition to the word—cyberbullying? Please follow the often used pattern for definition: "Cyberbullying is..." And find out some examples of cyberbullying in reality according to your definition.

III. Word Study

Underline 5 words or phrases you think are most important in the text. Work in pairs and discuss their meanings and why you choose them. And then share your words or phrases with the whole class.

IV. Writing after Reading

- 1. If you have the chance to write Tyler a letter before his death, what would you like to tell him?
- 2. What else can we ordinary people do to avoid cyberbullying? Write a passage to state your opinions.

TEXT B

Cyberbullying and Online Teens

Amanda Lenhart

- 1. About one third (32%) of all teenagers who use the internet say they have been targets of a range of annoying and potentially menacing online activities—such as receiving threatening messages; having their private emails or text messages forwarded without consent; having an embarrassing picture posted without permission; or having rumors about them spread online…
- 2. Depending on the circumstances, these harassing or "cyberbullying" behaviors may be truly threatening, merely annoying or relatively benign. But several patterns are clear: girls are more likely than boys to be targets; and teens who share their identities and thoughts online are more likely to be targets than are those who lead less active online lives.
- 3. Of all the online harassment asked about, the greatest number of teens told us that they had had a private communication forwarded or publicly posted without their permission. One in 6 teens (15%) told us someone had forwarded or posted communication they assumed was private. About 13% of teens told us that someone had spread a rumor about them online, and another 13% said that someone had sent them a threatening or aggressive email, IM or text message. Some 6% of online teens told us that someone had posted an embarrassing picture of them without their permission.
- 4. Yet when asked where they thought bullying happened most often to teens their age, the majority of teens, 67%, said that bullying and harassment happens more

offline than online. Less than one in three teens (29%) said that they thought that bullying was more likely to happen online, and three percent said they thought it happened both online and offline equally.

- 5. These results come from a nationally-representative phone survey of 935 teenagers by the Pew Internet & American Life Project.
- 6. In focus groups conducted by the Project about the issue, one 16-year-old girl casually described how she and her classmates bullied a fellow student: "There's one MySpace from my school this year. There's this boy in my anatomy class who everybody hates. He's like the smart kid in class. Everybody's jealous. They all want to be smart. He always wants to work in our group and I hate it. And we started this thing, some girl in my class started this I Hate [name] MySpace thing. So everybody in school goes on it to comment bad things about this boy."

Fewer Communications Are Private Anymore

The rumor mill speeds up.

- 7. A bit more than one in eight or 13% of teens said that someone had spread a rumor about them online. A girl in middle school told us: "I know a lot of times online someone will say something about one person and it' Il spread and then the next day in school, I know there's like one of my friends, something happened online and people started saying she said something that she never said, and the next day we came into school and no one would talk to her and everyone's ignoring her. And she had no idea what was going on. Then someone sent her the whole conversation between these two people."
- 8. Girls are more likely to report someone spreading rumors about them then boys, with 16% of girls reporting rumor-spreading compared with 9% of boys. Social network users are more likely than those who do not use social networks to report that someone had spread a rumor about them (16% vs 8%)...

Bullying Happens More Often Offline

- 9. Two-thirds of all teens (67%) said that bullying and harassment happens more offline than online. Fewer than one in three teens (29%) said that they thought that bullying was more likely to happen online, and 3% said they thought it happened both online and offline equally.
- 10. Girls are a bit more likely than boys to say that bullying happens more online (33% of girls vs. 25% of boys), though overall, both boys and girls say that kids their age are more likely to be harassed offline. White teens are a bit more likely than African-American teens to think that bullying is more of a problem online—32% of white teens said bullying happens more often online, while 18% of African-American teens said the same. Teens who have online profiles are just as likely as those who do not to say that bullying happens more often offline.
- 11. Teens who have been cyberbullying are more likely than their peers who have not been bullied to say that they believe bullying happens online more than offline. However, the majority of bullied teens say that bullying is more likely to happen offline than online. More than 7 in 10 (71%) of teens who have not experienced bullying believe it happens more often offline, while 57% of teens who have been cyberbullied themselves say bullying happens more offline.

Why Do Teens Bully Online?

12. In our focus groups, we asked teens about online experiences they had with bullying and harassment. In some cases what we heard was that adolescent cruelty had simply moved from the school yard, the locker room, the bathroom wall and the phone onto the internet. The simplicity of being able to replicate and quickly transmit digital content makes bullying quite easy. "Just copy and paste whatever somebody says," a middle school girl explains as she describes online bullying tactics. "You have to watch what you say," counsels another middle school girl. "If that person'

s at their house and if you say something about them and you don't know they're there or if you think that person's your friend and you trust them and you're like, 'Oh, well, she's really being annoying,' she could copy and paste and send it to [anyone]." Another middle school girl describes how the manipulation of digital materials can be used to hurt someone. "Like I was in a fight with a girl and she printed out our conversation, changed some things that I said, and brought it into school, so I looked like a terrible person."

- 13. Some teens suggested that it is the mediated nature of the communication that contributes to bullying, insulating teens from the consequences of their actions. One high school boy responded to the question whether he had heard of cyberbullying: "I' ve heard of it and experienced it. People think they are a million times stronger because they can hide behind their computer monitor. Also known as 'e-thugs'. Basically I just ignored the person and went along with my own civilized business." A middle school girl described "stuff starting online for no reason."
- 14. Intolerance also sparks online bullying incidents, as a middle school girl related in a focus group. "I have this one friend and he's gay and his account got hacked and someone put all these really homophobic stuff on there and posted like a mass bulletin of like some guy with his head smashed open like run over by a car. It was really gruesome and disgusting."
- 15. Bullying has entered the digital age. The impulses behind it are the same, but the effect is magnified. In the past, the materials of bullying would have been whispered, shouted or passed around. Now, with a few clicks, a photo, video or a conversation can be shared with hundreds via email or millions through a website, online profile or blog posting.

(adapted from Amanda Lenhart "Cyberbullying and Online Teens" Pew Internet & American Life Project (Pewinternet.org, June 27, 2007),《立场: 辩证思维训练.传媒与社会篇》,外研社)

Exercises

I. Critical Thinking and Reflection

- 1. Have you, or someone you care about, ever experienced face-to-face or online bullying? How powerless does it make you feel?
- 2. Critically thinking about the consequences of online behavior can go a long way toward preventing an unintentional hostile situation, but could some form of online "politeness" or "suggested behaviors" help guide people who are new to this way of communicating?
- 3. Think about the intimacy in online communication. Most people use personal technologies in the home, or in an intimate setting, and because messages are transmitted with the speed of a keystroke, most messages may be emotional, rather than objective. We need to develop a more even-handed approach to thinking about our online behavior.