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Multilevel Reading Practice Book – Part 5

10 Reading Practice Tests

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Exercise 1

Young children struggle with color concepts, and the reason for this may have something to do with how we use the words that describe them.

A In the course of the first few years of their lives, children who are brought up in English-speaking homes successfully master the use of hundreds of words. Words for objects, actions, emotions, and many other aspects of the physical world quickly become part of their infant repertoire. For some reason, however, when it comes to learning color words, the same children perform very badly. At the age of four months, babies can distinguish between basic color categories. Yet it turns out they do this in much the same way as blind children. "Blue" and "yellow" appear in older children's expressive language in answer to questions such as "What color is this?", but their mapping of objects to individual colors is haphazard and interchangeable. If shown a blue cup and asked about its color, typical two-year-olds seem as likely to come up with "red" as "blue." Even after hundreds of training trials, children as old as four may still end up being unable to accurately sort objects by color.

B In an effort to work out why this is, cognitive scientists at Stanford University in California hypothesized that children's incompetence at color-word learning may be directly linked to the way these words are used in English. While word order for color adjectives varies, they are used overwhelmingly in pre-nominal position (e.g. "blue cup"); in other words, the adjective comes before the noun it is describing. This is in contrast to post-nominal position (e.g. "The cup is blue") where the adjective comes after the noun. It seems that the difficulty children have may not be caused by any unique property of color, or indeed, of the world. Rather, it may simply come down to the challenge of having to make predictions from color words to the objects they refer to, instead of being able to make predictions from the world of objects to the color words.

To illustrate, the word "chair" has a meaning that applies to the somewhat varied set of entities in the world that people use for sitting on. Chairs have features, such as arms and legs and backs, that are combined to some degree in a systematic way; they turn up in a range of chairs of different shapes, sizes, and ages. It could be said that children learn to narrow down the set of cues that make up a chair and in this way they learn the concept associated with that word. On the other hand, color words tend to be unique and not bound to other specific co-occurring features; there is nothing systematic about color words to help cue their meaning. In the speech that adults direct at children, color adjectives occur pre-nominally ("blue cup") around 70 percent of the time. This suggests that most of what children hear from adults will, in fact, be unhelpful in learning what color words refer to.

C To explore this idea further, the research team recruited 41 English children aged between 23 and 29 months and carried out a three-phase experiment. It consisted of a pre-test, followed by training in the use of color words, and finally a post-test that was identical to the pre-test. The pre- and post-test materials comprised six objects that were novel to the children. There were three examples of each object in each of three colors—red, yellow, and blue. The objects were presented on trays, and in both tests, the children were asked to pick out objects in response to requests in which the color word was either a prenominal ("Which is the red one?") or a post-nominal ("Which one is red?").

In the training, the children were introduced to a "magic bucket" containing five sets of items familiar to 26-month-olds (balls, cups, crayons, glasses, and toy bears) in each of the three colors. The training was set up so that half the children were presented with

the items one by one and heard them labelled with color words used pre-nominally ("This is a red crayon"), while the other half were introduced to the same items described with a post-nominal color word ("This crayon is red"). After the training, the children repeated the selection task on the unknown items in the post-test. To assess the quality of children's understanding of the color words, and the effect of each type of training, correct choices on items that were consistent across the pre- and post-tests were used to measure children's color knowledge.

D Individual analysis of pre- and post-test data, which confirmed parental vocabulary reports, showed the children had at least some knowledge of the three colour words: they averaged two out of three correct choices in response to both pre- and post-nominal question types, which, it has been pointed out, is better than chance. When children's responses to the question types were assessed independently, performance was at its most consistent when children were both trained and tested on post-nominal adjectives, and worst when trained on pre-nominal adjectives and tested on post-nominal adjectives. Only children who had been trained with post-nominal color-word presentation and then tested with post-nominal question types were significantly more accurate than chance. Comparing the pre- and post-test scores across each condition revealed a significant decline in performance when children were both pre- and post-tested with questions that placed the color words pre-nominally.

As predicted, when children are exposed to color adjectives in post-nominal position, they learn them rapidly (after just five training trials per color); when they are presented with them pre-nominally, as English overwhelmingly tends to do, children show no signs of learning.

For questions 1-4, fill in the missing information in the numbered spaces.

Write no more than ONE WORD and / or A NUMBER for each question.

THE HYPOTHESIS

Children learn many words quite quickly, but their ability to learn colour words takes longer than expected.

In fact, despite 1. _____ trials many four-year olds still struggle to arrange objects into colour categories.

While objects consist of a number of 2. _____ that can be used to recognise other similar objects, the 3. _____ of a colour cannot be developed using the same approach. As a consequence, the way colour words tend to be used in English may be 4. _____ to children.

For questions 5-6, choose the correct answer A, B, C, or D. Mark your answers on the answer sheet.

5. Which of the following statement about the experiment is true?

- A. The children were unfamiliar with the objects used in the pre- and post-test.
- B. The children had to place the pre- and post-test objects onto coloured trays.
- C. Pre-nominal questions were used less frequently than post-nominal questions in the training.
- D. The researchers were looking for inconsistencies in children's knowledge of word order.

6. Which of the following outcome is reported in the passage?

- A. Average results contradicted parental assessment of children's knowledge.

- B. Children who were post-tested using post-nominal adjectives performed well, regardless of the type of training.
- C. Greatest levels of improvement were achieved by children who were trained and post-tested using post-nominal adjectives.
- D. Some children were unable to accurately name any of the colours in the pre- and post-tests.

Exercise 2

ECO-RESORT MANAGEMENT

A Ecotourism is often regarded as a form of nature-based tourism and has become an important alternative source of tourists. In addition to providing the traditional resort-leisure product, it has been argued that ecotourism resort management should have a particular focus on best-practice environmental management, an educational and interpretive component, and direct and indirect contributions to the conservation of the natural and cultural environment (Ayala, 1996).

B Couran Cove Island Resort is a large integrated ecotourism-based resort located south of Brisbane on the Gold Coast, Queensland, Australia. As the world's population becomes increasingly urbanised, the demand for tourist attractions which are environmentally friendly, serene and offer amenities of a unique nature, has grown rapidly. Couran Cove Resort, which is one such tourist attractions, is located on South Stradbroke Island, occupying approximately 150 hectares of the island. South Stradbroke Island is separated from the mainland by the Broadwater, a stretch of sea 3 kilometers wide. More than a century ago, there was only one Stradbroke Island, and there were at least four aboriginal tribes living and hunting on the island. Regrettably, most of the original island dwellers were eventually killed by diseases such as tuberculosis, smallpox and influenza by the end of the 19th. The second ship wreck on the island in 1894, and the subsequent destruction of the ship (the Cambus Wallace) because it contained dynamite, caused a large crater in the sandhills on Stradbroke Island. Eventually, the ocean broke through the weakened land form and Stradbroke became two islands. Couran Cove Island Resort is built on one of the world's few naturally-occurring sand lands, which is home to a wide range of plant communities and one of the largest remaining remnants of the rare livistona rainforest left on the Gold Coast. Many mangrove and rainforest areas, and Malaleuca Wetlands on South Stradbroke Island (and in Queensland), have been cleared, drained or filled for residential, industrial, agricultural or urban development in the first half of the 20th century. Farmer and graziers finally abandoned South Stradbroke Island in 1939 because the vegetation and the soil conditions there were not suitable for agricultural activities.

Sustainable practices of couran cove resort

Being located on an offshore island, the resort is only accessible by means of water transportation. The resort provides hourly ferry service from the marina on the mainland to and from the island. Within the resort, transport modes include walking trails, bicycle tracks and the beach train. The reception area is the counter of the shop which has not changed in 8 years at least. The accommodation is an octagonal "Bure". These are large rooms that are clean but! The equipment is tired and in some cases just working. Our ceiling fan only worked on high speed for example. Beds are hard but clean, there is television, radio, an old air conditioner and a small fridge. These "Bures" are right on top of each other and night noises do carry so be careful what you say and do. The only

thing is the mosquitos but if you forget to bring mosquito repellent they sell some on the island.

As an ecotourism-based resort, most of the planning and development of the attraction has been concentrated on the need to co-exist with the fragile natural environment of South Stradbroke Island to achieve sustainable development.

Water and energy management

C South Stradbroke Island has groundwater at the centre of the island, which has a maximum height of 3 metres above sea level. The water supply is recharged by rainfall and is commonly known as an unconfined freshwater aquifer. Couran Cove Island Resort obtains its water supply by tapping into this aquifer and extracting it via a bore system. Some of the problems which have threatened the island's freshwater supply include pollution, contamination and over-consumption. In order to minimise some of these problems, all laundry activities are carried out on the mainland. The resort considers washing machines as onerous to the island's freshwater supply, and that the detergents contain a high level of phosphates which are a major source of water pollution. The resort uses LPG-power generation rather than a diesel-powered plant for its energy supply, supplemented by wind turbine, which has reduced greenhouse emissions by 70% of diesel-equivalent generation methods. Excess heat recovered from the generator is used to heat the swimming pool. Hot water in the eco-cabins and for some of the resort's vehicles are solar-powered. Water efficient fittings are also installed in showers and toilets. However, not all the appliances used by the resort are energy efficient, such as refrigerators. Visitors who stay at the resort are encouraged to monitor their water and energy usage via the in-house television system, and are rewarded with prizes (such as a free return trip to the resort) accordingly if their usage level is low.

Concluding remarks

D We examined a case study of good management practice and a pro-active sustainable tourism stance of an eco-resort. In three years of operation, Couran Cove Island Resort has won 23 international and national awards, including the 2001 Australian Tourism Award in the 4-Star Accommodation category. The resort has embraced and has effectively implemented contemporary environmental management practices. It has been argued that the successful implementation of the principles of sustainability should promote long-term social, economic and environmental benefits, while ensuring and enhancing the prospects of continued viability for the tourism enterprise. Couran Cove Island Resort does not conform to the characteristics of the Resort Development Spectrum, as proposed by Prideaux (2000). According to Prideaux, the resort should be at least at Phase 3 of the model (the National tourism phase), which describes an integrated resort providing 3-4 star hotel-type accommodation. The primary tourist market in Phase 3 of the model consists mainly of interstate visitors. However, the number of interstate and international tourists visiting the resort is small, with the principal visitor markets comprising locals and residents from nearby towns and the Gold Coast region. The carrying capacity of Couran Cove does not seem to be of any concern to the Resort management. Given that it is a private commercial ecotourist enterprise, regulating the number of visitors to the resort to minimize damage done to the natural environment on South Stradbroke Island is not a binding constraint. However, the Resort's growth will eventually be constrained by its carrying capacity, and quantity control should be incorporated in the management strategy of the resort.

For questions 1-4, fill in the missing information in the numbered spaces.

Write no more than ONE WORD and / or A NUMBER for each question.

Being located away from the mainland, tourists can attain the resort only by 6. _____ in a regular service. Within the resort, transports include trails for walking or tracks for both 7. _____ and the beach train. The on-island equipment is old-fashioned which is barely working such as the 8. _____ overhead. There is television, radio, an old air conditioner and a small fridge. And you can buy the repellent for 10. _____ if you forget to bring some.

For questions 5-6, choose the correct answer A, B, C, or D. Mark your answers on the answer sheet.

5. What does, as the managers of resorts believe, the prospective future focus on

- A more awards of for resort's accommodation
- B sustainable administration and development in a long run
- C Economic and environmental benefits for the tourism enterprise
- D successful implementation the Resort Development Spectrum

6. What is NOT TRUE as to the contemporary situation of Couran Cove Island R in the last paragraph

- A. Couran Cove Island Resort goes for more eco-friendly practices.
- B. The accommodation standard only conforms to the Resort Development Spectrum of Phase 3.
- C. Couran Cove Island Resort should raise the accommodation standard and build more facilities.
- D. Its carrying capacity will restrict the future business' expansion.

Exercise 3

WHAT DESTROYED THE CIVILISATION OF EASTER ISLAND?

Easter Island, or Rapa Nui as it is known locally, is home to several hundred ancient human statues - the moai. After this remote Pacific island was settled by the Polynesians, it remained isolated for centuries. All the energy and resources that went into the moai - some of which are ten metres tall and weigh over 7,000 kilos - came from the island itself. Yet when Dutch explorers landed in 1722, they met a Stone Age culture. The moai were carved with stone tools, then transported for many kilometres, without the use of animals or wheels, to massive stone platforms. The identity of the moai builders was in doubt until well into the twentieth century. Thor Heyerdahl, the Norwegian ethnographer and adventurer, thought the statues had been created by pre-Inca peoples from Peru. Bestselling Swiss author Erich von Daniken believed they were built by stranded extraterrestrials. Modern science - linguistic, archaeological and genetic evidence - has definitively proved the moai builders were Polynesians, but not how they moved their creations. Local folklore maintains that the statues walked, while researchers have tended to assume the ancestors dragged the statues somehow, using ropes and logs.

When the Europeans arrived, Rapa Nui was grassland, with only a few scrawny trees. In the 1970s and 1980s, though, researchers found pollen preserved in lake sediments, which proved the island had been covered in lush palm forests for thousands of years. Only after the Polynesians arrived did those forests disappear. US scientist Jared Diamond believes that the Rapanui people - descendants of Polynesian settlers - wrecked their own environment. They had unfortunately settled on an extremely fragile island - dry, cool, and too remote to be properly fertilised by windblown volcanic ash.

When the islanders cleared the forests for firewood and farming, the forests didn't grow back. As trees became scarce and they could no longer construct wooden canoes for fishing, they ate birds. Soil erosion decreased their crop yields. Before Europeans arrived, the Rapanui had descended into civil war and cannibalism, he maintains. The collapse of their isolated civilisation, Diamond writes, is a 'worst-case scenario for what may lie ahead of us in our own future'.

The moai, he thinks, accelerated the self-destruction. Diamond interprets them as power displays by rival chieftains who, trapped on a remote little island, lacked other ways of asserting their dominance. They competed by building ever bigger figures. Diamond thinks they laid the moai on wooden sledges, hauled over log rails, but that required both a lot of wood and a lot of people. To feed the people, even more land had to be cleared. When the wood was gone and civil war began, the islanders began toppling the moai. By the nineteenth century none were standing.

Archaeologists Terry Hunt of the University of Hawaii and Carl Lipo of California State University agree that Easter Island lost its lush forests and that it was an 'ecological catastrophe' - but they believe the islanders themselves weren't to blame. And the moai certainly weren't. Archaeological excavations indicate that the Rapanui went to heroic efforts to protect the resources of their wind-lashed, infertile fields. They built thousands of circular stone windbreaks and gardened inside them, and used broken volcanic rocks to keep the soil moist. In short, Hunt and Lipo argue, the prehistoric Rapanui were pioneers of sustainable farming.

Hunt and Lipo contend that moai-building was an activity that helped keep the peace between islanders. They also believe that moving the moai required few people and no wood, because they were walked upright. On that issue, Hunt and Lipo say, archaeological evidence backs up Rapanui folklore. Recent experiments indicate that as few as 18 people could, with three strong ropes and a bit of practice, easily manoeuvre a 1,000 kg moai replica a few hundred metres. The figures' fat bellies tilted them forward, and a D-shaped base allowed handlers to roll and rock them side to side.

Moreover, Hunt and Lipo are convinced that the settlers were not wholly responsible for the loss of the island's trees. Archaeological finds of nuts from the extinct Easter Island palm show tiny grooves, made by the teeth of Polynesian rats. The rats arrived along with the settlers, and in just a few years, Hunt and Lipo calculate, they would have overrun the island. They would have prevented the reseedling of the slow-growing palm trees and thereby doomed Rapa Nui's forest, even without the settlers' campaign of deforestation. No doubt the rats ate birds' eggs too. Hunt and Lipo also see no evidence that Rapanui civilisation collapsed when the palm forest did. They think its population grew rapidly and then remained more or less stable until the arrival of the Europeans, who introduced deadly diseases to which islanders had no immunity. Then in the nineteenth century slave traders decimated the population, which shrivelled to 111 people by 1877.

Hunt and Lipo's vision, therefore, is one of an island populated by peaceful and ingenious moai builders and careful stewards of the land, rather than by reckless destroyers ruining their own environment and society. 'Rather than a case of abject failure, Rapa Nui is an unlikely story of success', they claim. Whichever is the case, there are surely some valuable lessons which the world at large can learn from the story of Rapa Nui.

For questions 1-4, fill in the missing information in the numbered spaces.

Write no more than ONE WORD and / or A NUMBER for each question.

JARED DIAMOND'S VIEW

Diamond believes that the Polynesian settlers on Rapa Nui destroyed its forests, cutting down its trees for fuel and clearing land for 1. _____

Twentieth-century discoveries of pollen prove that Rapa Nui had once been covered in palm forests, which had turned into grassland by the time the Europeans arrived on the island.

When the islanders were no longer able to build the 2. _____ they needed to go fishing, they began using the island's 3. _____ as a food source, according to Diamond.

Diamond also claims that the moai were built to show the power of the island's chieftains, and that the methods of transporting the statues needed not only a great number of people, but also a great deal of 4. _____

For questions 5-6, choose the correct answer A, B, C, or D. Mark your answers on the answer sheet.

5. Which of the following statement of Hunt and Lipo is true?

- A. The islanders destroyed their habitat by building thousands of circular stone windbreaks and gardened inside them, and using broken volcanic rocks to keep the soil moist.
- B. The islanders' society didn't collapse even after the first European settlers arrived.
- C. Rapa Nui story shouldn't have been success as they recklessly destroyed their habitat.
- D. the Rapa Nui culture, despite others think, made some effort to save their environment.

6. What is the writer's purpose in the passage?

- A. To criticise the Polynesians who destroyed their environment.
- B. To highlight the current environmental issues of the Easter Island.
- C. To give information about giant human statues that can be found only on Easter Island.
- D. To compare two ideas about how the civilization of the Easter Island collapsed.

Exercise 4

JOHNSON'S DICTIONARY

For the century before Johnson's Dictionary was published in 1775, there had been concern about the state of the English language. There was no standard way of speaking or writing and no agreement as to the best way of bringing some order to the chaos of English spelling. Dr Johnson provided the solution.

There had, of course, been dictionaries in the past, the first of these being a little book of some 120 pages, compiled by a certain Robert Cawdray, published in 1604 under the title *A Table Alphabetical! 'of hard usual English wordes'*. Like the various dictionaries that came after it during the seventeenth century, Cawdray's tended to concentrate on 'scholarly' words; one function of the dictionary was to enable its student to convey an impression of fine learning.

Beyond the practical need to make order out of chaos, the rise of dictionaries is associated with the rise of the English middle class, who were anxious to define and circumscribe the various worlds to conquer - lexical as well as social and commercial. It is highly appropriate that Dr Samuel Johnson, the very model of an eighteenth-century literary man, as famous in his own time as in ours, should have published his dictionary at the very beginning of the heyday of the middle class.

Johnson was a poet and critic who raised common sense to the heights of genius. His approach to the problems that had worried writers throughout the late seventeenth and early eighteenth centuries was intensely practical. Up until his time, the task of producing a dictionary on such a large scale had seemed impossible without the establishment of an academy to make decisions about right and wrong usage. Johnson decided he did not need an academy to settle arguments about language; he would write a dictionary himself; and he would do it single-handed. Johnson signed the contract for the Dictionary with the bookseller Robert Dosley at a breakfast held at the Golden Anchor Inn near Holborn Bar on 18 June 1764. He was to be paid £ 1.575 in instalments, and from this he took money to rent 17 Gough Square, in which he set up his 'dictionary workshop'.

James Boswell, his biographer described the garret where Johnson worked as 'fitted up like a counting house' with a long desk running down the middle at which the copying clerks would work standing up. Johnson himself was stationed on a rickety chair at an 'old crazy deal table' surrounded by a chaos of borrowed books. He was also helped by six assistants, two of whom died whilst the Dictionary was still in preparation.

The work was immense; filling about eighty large notebooks (and without a library to hand). Johnson wrote the definitions of over 40,000 words, and illustrated their many meanings with some 14,000 quotations drawn from English writing on every subject, from the Elizabethans to his own time. He did not expect to achieve complete originality. Working to a deadline, he had to draw on the best of all previous dictionaries, and to make his work one of heroic synthesis. In fact it was very much more. Unlike his predecessors, Johnson treated English very practically, as a living language, with many different shades of meaning. He adopted his definitions on the principle of English common law - according to precedent. After its publication, his Dictionary was not seriously rivalled for over a century.

After many vicissitudes the Dictionary was finally published on 15 April 1775. It was instantly recognised as a landmark throughout Europe. This very noble work,' wrote the leading Italian lexicographer; 'will be a perpetual monument of Fame to the Author, an Honour to his own Country in particular, and a general Benefit to the republic of Letters throughout Europe.' The fact that Johnson had taken on the Academies of Europe and matched them (everyone knew that forty French academics had taken forty years to produce the first French national dictionary) was cause for much English celebration.

Johnson had worked for nine years. 'with little assistance of the learned, and without any patronage of the great; not in the soft obscurities of retirement, or under the shelter of academic bowers, but amidst inconvenience and distraction, in sickness and in sorrow'. For all its faults and eccentricities his two-volume work is a masterpiece and a landmark, in his own words, 'setting the orthography, displaying the analogy, regulating the structures, and ascertaining the significations of English words'. It is the cornerstone of Standard English, an achievement which, in James Boswell's words, 'conferred stability on the language of his country'.

The Dictionary, together with his other writing, made Johnson famous and so well esteemed that his friends were able to prevail upon King George III to offer him a pension. From then on, he was to become the Johnson of folklore.

For questions 1-4, fill in the missing information in the numbered spaces.

Write no more than ONE WORD and / or A NUMBER for each question.

In 1764 Dr Johnson accepted the contract to produce a dictionary. Having rented a garret, he took on a number of 4. _____ who stood at a long central desk.

Johnson did not have a 5. _____ available to him, but eventually produced definitions of in excess of 40,000 words written down in 80 large notebooks. On publication, the Dictionary was immediately hailed in many European countries as a landmark. According to his biographer, James Boswell, Johnson's principal

achievement was to bring 6. _____ to the English language. As a reward for his hard work, he was granted a 7. _____ by the king.

For questions 5-6, choose the correct answer A, B, C, or D. Mark your answers on the answer sheet.

5. Which of the following statements is NOT TRUE of Johnson's Dictionary?

- A. It focused mainly on language from contemporary texts.
- B. There was a time limit for its completion.
- C. It ignored work done by previous dictionary writers.
- D. It took into account subtleties of meaning.

5. Which of the following statements agree with the information given in Reading Passage?

- A. The growing importance of the middle classes led to an increased demand for dictionaries.
- B. Johnson had been planning to write a dictionary for several years.
- C. Johnson set up an academy to help with the writing of his Dictionary.
- D. Johnson only received payment for his Dictionary on its completion.

Exercise 5

ACQUIRING THE PRINCIPLES OF MATHEMATICS AND SCIENCE

A It has been pointed out that learning mathematics and science is not so much learning facts as learning ways of thinking. It has also been emphasised that in order to learn science, people often have to change the way they think in ordinary situations. For example, in order to understand even simple concepts such as heat and temperature, ways of thinking of temperature as a measure of heat must be abandoned and a distinction between 'temperature' and 'heat' must be learned. These changes in ways of thinking are often referred to as conceptual changes. But how do conceptual changes happen? How do young people change their ways of thinking as they develop and as they learn in school?

B Traditional instruction based on telling students how modern scientists think does not seem to be very successful. Students may learn the definitions, the formulae, the terminology, and yet still maintain their previous conceptions. This difficulty has been illustrated many times, for example, when instructed students are interviewed about heat and temperature. It is often identified by teachers as a difficulty in applying the concepts learned in the classroom; students may be able to repeat a formula but fail to use the concept represented by the formula when they explain observed events.

C The psychologist Piaget suggested an interesting hypothesis relating to the process of cognitive change in children. Cognitive change was expected to result from the pupils' own intellectual activity. When confronted with a result that challenges their thinking - that is, when faced with conflict - pupils realise that they need to think again about their own ways of solving problems, regardless of whether the problem is one in mathematics or in science. He hypothesised that conflict brings about disequilibrium, and then triggers equilibration processes that ultimately produce cognitive change. For

this reason, according to Piaget and his colleagues, in order for pupils to progress in their thinking they need to be actively engaged in solving problems that will challenge their current mode of reasoning. However, Piaget also pointed out that young children do not always discard their ideas in the face of contradictory evidence. They may actually discard the evidence and keep their theory.

D Piaget's hypothesis about how cognitive change occurs was later translated into an educational approach which is now termed 'discovery learning'. Discovery learning initially took what is now considered the 'one learner' route. The role of the teacher was to select situations that challenged the pupils' reasoning; and the pupils' peers had no real role in this process. However, it was subsequently proposed that interpersonal conflict, especially with peers, might play an important role in promoting cognitive change. This hypothesis, originally advanced by Perret-Clermont (1980) and Doise and Mugny (1984), has been investigated in many recent studies of science teaching and learning.

E Christine Howe and her colleagues, for example, have compared children's progress in understanding several types of science concepts when they are given the opportunity to observe relevant events. In one study, Howe compared the progress of 8 to 12-year-old children in understanding what influences motion down a slope. In order to ascertain the role of conflict in group work, they created two kinds of groups according to a pre-test: one in which the children had dissimilar views, and a second in which the children had similar views.

They found support for the idea that children in the groups with dissimilar views progressed more after their training sessions than those who had been placed in groups with similar views. However, they found no evidence to support the idea that the children worked out their new conceptions during their group discussions, because progress was not actually observed in a post-test immediately after the sessions of group work, but rather in a second test given around four weeks after the group work.

F In another study, Howe set out to investigate whether the progress obtained through pair work could be a function of the exchange of ideas. They investigated the progress made by 12-15-year-old pupils in understanding the path of falling objects, a topic that usually involves conceptual difficulties. In order to create pairs of pupils with varying levels of dissimilarity in their initial conceptions, the pupils' predictions and explanations of the path of falling objects were assessed before they were engaged in pair work. The work sessions involved solving computer-presented problems, again about predicting and explaining the paths of falling objects. A post-test, given to individuals, assessed the progress made by pupils in their conceptions of what influenced the path of falling objects.

For questions 1-4, fill in the missing information in the numbered spaces.

Write no more than ONE WORD and / or A NUMBER for each question.

HOW CHILDREN LEARN

Piaget proposed that learning takes place when children encounter ideas that do not correspond to their current beliefs. The application of this theory gave rise to a teaching method known as 1. _____.

At first this approach only focused on the relationship between individual pupils and their 2. _____.

Later, researchers such as Perret-Clermont became interested in the role that interaction with 3. _____ might also play in a pupil's development.

Christine Howe and her team made research about conflict's role in a team work. They separated kids into two groups. One group consisted to kids who had different views and the other group consisted of kids who had 4. _____ views.

For questions 5-6, choose the correct answer A, B, C, or D. Mark your answers on the answer sheet.

5. Which of these statements is attributed to Piaget by the writer of the passage?

- A. Teachers can assist learning by explaining difficult concepts.
- B. Mental challenge is a stimulus to learning.
- C. Repetition and consistency of input aid cognitive development.
- D. Children can help each other make cognitive progress.

6. Which of the following is the correct heading for the paragraph D?

- A. A suggested modification to a theory about learning.
- B. The problem of superficial understanding.
- C. The rejection of a widely held theory.
- D. Evidence for the delayed benefits of disagreement between pupils.

Exercise 6

IS AID HURTING AFRICA?

Despite its population of more than one billion and its rich land and natural resources, the continent of Africa remains poor. The combined economies of its 54 states equal that of one European country: the Netherlands.

It is difficult to speak of Africa as a unit as its states differ from each other in culture, climate, size, and political system. Since mid-20th-century independence, many African states have pursued different economic policies. Yet, none of them has overcome poverty. Why might this be?

One theory says Africa is unlucky. Sparsely populated with diverse language and culture, it contains numerous landlocked countries, and it is far from international markets. Dambisa Moyo, a Zambian-born economist, has another theory. In her 2009 book, *Dead Aid*, she proposes that international aid is largely to blame for African poverty because it has encouraged dependence and corruption, and has diverted talented people from the business. One of her statistics is that from 1970-98, when aid to Africa was highest, poverty rose from eleven to 66%. If aid were cut, she believes Africans would utilise their resources more creatively.

When a state lacks the capacity to care for its people, international non-governmental organisations (NGOs), like Oxfam or the Red Cross, assume this role. While NGOs distribute food or medical supplies, Moyo argues they reduce the ability of the state to provide. Furthermore, during this process, those in government and the military siphon off aid goods and money themselves. Transparency International, an organisation that surveys corruption, rates the majority of African states poorly.

Moyo provides another example. Maybe a Hollywood star donates American-made mosquito nets. Certainly, this benefits malaria-prone areas, but it also draws business away from local African traders who supply nets. More consultation is needed between do-gooder foreigners and local communities.

Moyo also suggests African nations increase their wealth by investment in bonds, or by increased co-operation with China.

The presidents of Rwanda and Senegal are strong supporters of Moyo, but critics say her theories are simplistic. The international aid community is not responsible for geography, nor has it anything to do with the military takeover, corruption, or legislation that hampers trade. Africans have had half a century of self-government and economic control, yet, as the population of the continent doubled, its GDP has risen only 60%. In the same period, Malaysia and Vietnam threw off colonialism and surged ahead economically by investing in education, health, and infrastructure; by lowering taxes on international trade; and, by being fortunate to be surrounded by other successful nations.

The economist Paul Collier has speculated that if aid were cut, African governments would not find alternative sources of income, nor would they reduce corruption. Another economist, Jeffrey Sachs, has calculated that twice the amount of aid currently given is needed to prevent suffering on a grand scale.

In *Dead Aid*, Moyo presents her case through a fictitious country called 'Dongo', but nowhere does she provide examples of real aid organisations causing actual problems. Her approach may be entertaining, but it is hardly academic.

Other scholars point out that Africa is dominated by tribal societies with military-government elites. Joining the army, rather than doing business, was the easiest route to personal wealth and power. Unsurprisingly, military takeovers have occurred in almost every African country. In the 1960s and 70s, European colonials were replaced by African 'colonials' – African generals and their families. Meantime, the very small, educated bourgeoisie has moved abroad. All over Africa, strongmen leaders have ruled for a long time, or one unstable military regime has succeeded another. As a result, business, separate from the military government is rare, and international investment limited.

Post-secondary education rates are low in Africa. Communications and transportation remain basic although mobile phones are having an impact. The distances farmers must travel to market are vast due to poor roads. High cross-border taxes and long bureaucratic delays are par for the course. African rural populations exceed those elsewhere in the world. Without a decent infrastructure or an educated urbanised workforce, a business cannot prosper. Recent World Bank statistics show that in southern Africa, the number of companies using the internet for business is 20% as opposed to 40% in South America or 80% in the US. There are 37 days each year without water whereas there is less than one day in Europe. The average cost of sending one container to the US is \$7600, but only \$3900 from East Asia or the Pacific. All these problems are the result of poor state planning.

Great ethnic and linguistic diversity within African countries has led to tribal favouritism. Governments are often controlled by one tribe or allied tribes; civil war is usually tribal. It is estimated each civil war costs a country roughly \$64 billion. Southern Africa had 34 such conflicts from 1940-2000 while South Asia, the next-affected region, had only 24 in the same period. To this day, a number of bloody conflicts continue.

Other opponents of Moyo add that her focus on market investment and more business with China is short-sighted. The 2008 financial crisis meant that countries with market

investments lost money. Secondly, China's real intentions in Africa are unknown, but everyone can see China is buying up African farmland and securing cheap oil supplies.

All over Africa, there are untapped resources, but distance, diversity, and low population density contribute to poverty. Where there is no TV, infrequent electricity, and bad roads, there still seems to be money for automatic weapons just the right size for 12-year-old boys to use. Blaming the West for assisting with aid fails to address the issues of continuous conflict, ineffective government, and little infrastructure. Nor does it prevent terrible suffering.

Has aid caused problems for Africa, or is Africa's strife of its own making or due to geography? Whatever you think, Dambisa Moyo's book has generated lively discussion, which is fruitful for Africa.

For questions 1-4, fill in the missing information in the numbered spaces.

Write no more than ONE WORD and / or A NUMBER for each question.

MOYO'S THEORY

International 1. _____ is largely responsible. States now depend on it, and are corrupt as a result. Talented people have been drawn away from 2. _____ by working for NGOs.

If foreigners help, they ought to involve local 3. _____ more.

African states should buy into bond markets, and have a closer relationship with 4. _____

For questions 5-6, choose the correct answer A, B, C, or D. Mark your answers on the answer sheet.

5. Which of the statement does the writer of Passage support?

- A. Moyo is right that international aid is causing Africa's problems.
- B. Moyo has ignored the role of geography in Africa.
- C. Convincing evidence is lacking in Moyo's theory.
- D. Most political leaders in Africa agree with Moyo's analysis.

6. According the passage, African countries...

- A. is increasing its partnership with China
- B. is doing enough for business but cut off from the world
- C. has the best economic growth potential.
- D. have been led by military powers since the last century.

Exercise 7

SHOULD SPACE BE EXPLORED BY ROBOTS OR BY HUMANS?

A The advisability of humans participating directly in space travel continues to cause many debates. There is no doubt that the presence of people on board a space vehicle makes its design much more complex and challenging, and produces a large increase in costs, since safety requirements are greatly increased, and the technology providing necessities for human passengers such as oxygen, food water must be guaranteed. Moreover, the systems required are bulky and costly, and their complexity increases for long-duration missions. Meanwhile, advances in electronics and computer science allow

increasingly complex tasks to be entrusted to robots, and unmanned space probes are becoming lighter, smaller and more convenient.

B However, experience has shown that the idea of humans in space is popular with the public. Humans can also be useful; there are many cases when only direct intervention by an astronaut or cosmonaut can correct the malfunction of an automatic device. Astronauts and cosmonauts have proved that they can adapt to conditions of weightlessness and work in space without encountering too many problems, as was seen in the operations to repair and to upgrade the Hubble Space Telescope. One human characteristic which is particularly precious in space missions, and which so far is lacking in robots, is the ability to perform a great variety of tasks. In addition, robots are not good at reacting to situations they have not been specifically prepared for. This is especially important in the case of deep space missions. While, in the case of the Moon, it is possible for someone on Earth to 'tele-operate' a robotic device such as a probe, as the two-way link time is only a couple of seconds, on Mars the two-way link time is several minutes, so sending instructions from Earth is more difficult.

C Many of the promises of artificial intelligence are still far from being fulfilled. The construction of machines simulating human logical reasoning moves towards ever more distant dates. The more the performance of computers improves, the more we realise how difficult it is to build machines which display logical abilities. In the past it was confidently predicted that we would soon have fully automated factories in which all operations were performed without any human intervention, and forecasts of the complete substitution of workers by robots in many production areas were made. Today, these perspectives are being revised. It seems that all machines, even the smartest ones, must cooperate with humans. Rather than replacing humans, the present need appears to be for an intelligent machine capable of helping a human operator without replacing him or her. The word 'cobot', from 'collaborative robot', has been invented to designate this type.

D A similar trend is also apparent in the field of space exploration. Tasks which were in the past entrusted only to machines are now performed by human beings, sometimes with the aim of using simpler and less costly devices, sometimes to obtain better performance. In many cases, to involve a person in the control loop is a welcome simplification which may lower the cost of a mission without compromising safety. Many operations originally designed to be performed under completely automatic control can be performed more efficiently by astronauts, perhaps helped by their 'cobots'. The human-machine relationship must evolve towards a closer collaboration.

E One way this could happen is by adopting the Mars Outposts approach, proposed by the Planetary Society. This would involve sending a number of robotic research stations to Mars, equipped with permanent communications and navigational systems. They would perform research, and establish the infrastructure needed to prepare future landing sites for the exploration of Mars by humans. It has also been suggested that in the most difficult environments, as on Venus or Jupiter, robots could be controlled by human beings located in spaceships which remain in orbit around the planet. In this case the link time for communication between humans and robots would be far less than it would be from Earth.

F But if space is to be more than a place to build automatic laboratories or set up industrial enterprises in the vicinity of our planet, the presence of humans is essential. They must learn how to voyage through space towards destinations which will be not only scientific bases but also places to live. If space is a frontier, that frontier must see the presence of people. So the aim for humankind in the future will be not just the exploration of space, but its colonisation. The result of exploring and living in space may

be a deep change in the views which humankind has of itself. And this process is already under way. The images of Earth taken from the Moon in the Apollo programme have given humankind a new consciousness of its fragility, its smallness, and its unity. These impressions have triggered a realisation of the need to protect and preserve it, for it is the place in the solar system most suitable for US and above all it is the only place we have, at least for now.

For questions 1-4, fill in the missing information in the numbered spaces.

Write no more than ONE WORD and / or A NUMBER for each question.

HUMANS IN SPACE - THE MARS OUTPOSTS APPROACH AND ITS IMPLICATIONS

One way of exploring space would be through collaboration between humans and robots. For example, when exploring the planet Mars, robots could be used to set up 1. _____ and do initial research before humans arrive. In other cases, humans could stay in orbiting 2. _____ and give orders to robots working on the surface of the planet.

This would increase the speed of 3. _____ with the robots. In such ways, robots might be used to work in space in commercial enterprises or 4. _____.

For questions 5-6, choose the correct answer A, B, C, or D. Mark your answers on the answer sheet.

5. According to the writer, which of these predictions about artificial intelligence have not yet been fulfilled?

- A. Robots will begin to oppose human interests,
- B. Robots will be used to help humans perform tasks more efficiently.
- C. Robots will think in the same way as humans.
- D. Robots will become too costly to use on space missions.

6. What can be the best title for the paragraph D?

- A. Robots on Earth - a re-evaluation
- B. Reduced expectations for space exploration
- C. A general reconsideration of human/robot responsibilities in space
- D. The barriers to cooperation in space exploration

Exercise 8

Keeping the water away

New approaches to flood control

Recently, winter floods on the rivers of central Europe have been among the worst for 600 to 700 years, and dams and dykes (protective sea walls) have failed to solve the problem. Traditionally, river engineers have tried to get rid of the water quickly, draining it off the land and down to the sea in rivers reengineered as high-performance drains. But however high they build the artificial riverbanks, the floods keep coming back. And when they come, they seem to be worse than ever

Engineers are now turning to a different plan: to sap the water's destructive strength by dispersing it into fields; forgotten lakes and flood plains. They are reviving river bends and marshes to curb the flow, and even plugging city drains to encourage floodwater to use other means to go underground. Back in the days when rivers took a winding path to the sea, floodwaters lost force and volume while meandering across flood plains and inland deltas, but today the water tends to have a direct passage to the sea. This means that, when it rains in the uplands, the water comes down all at once.

Worse, when the flood plains are closed off, the river's flow downstream becomes more violent and uncontrollable; by turning complex river systems into the simple mechanics of a water pipe, engineers have often created danger where they promised safety. The Rhine, Europe's most engineered river; is a good example. For a long time engineers have erased its backwaters and cut it off from its plain. The aim was partly to improve navigation, and partly to speed floodwaters out of Alps and down to the North Sea. Now, when it rains in the Alps, the peak flows from several branches of the Rhine coincide where once they arrived separately, and with four-fifths of the Lower Rhine's flood plain barricaded off, the waters rise. The result is more frequent flooding and greater damage. The same thing has happened in the US on the Mississippi river, which drains the world's second largest river catchment into the Gulf of Mexico. Despite some \$7 billion spent over the last century on levees (embankments) the situation is growing worse.

Specialists in water control now say that a new approach is needed - one which takes the whole landscape into consideration. To help keep London's feet dry, the UK Environment Agency is reflooding 10 square kilometres of the ancient flood plain of the River Thames outside Oxford. Nearer to London, it has spent £100 million creating new wetlands and a relief channel across 16 kilometres of flood plain. Similar ideas are being tested in Austria, in one of Europe's largest river restorations to date. The engineers calculate that the restored flood plain of the Drava River can now store up to 10 million cubic metres of floodwater, and slow down storm surges coming out of the Alps by more than an hour, protecting towns not only in Austria, but as far downstream as Slovenia and Croatia.

The Dutch, for whom preventing floods is a matter of survival, have gone furthest. This nation, built largely on drained marshes and seabed, has had several severe shocks in the last two decades, when very large numbers of people have had to be evacuated. Since that time, the Dutch have broken one of their most enduring national stereotypes by allowing engineers to punch holes in dykes. They plan to return up to a sixth of the country to its former waterlogged state in order to better protect the rest.

Water use in cities also needs to change. At the moment, cities seem to create floods; they are concreted and paved so that rains flow quickly into rivers. A new breed of 'soft engineers' wants cities to be porous, Berlin is one place where this is being done. Tough new rules for new developments mean that drains will be prevented from becoming overloaded after heavy rains. Architects of new urban buildings are diverting rainwater from the roofs for use in toilets and the irrigation of roof gardens, while water falling onto the ground is collected in ponds, or passes underground through porous paving. One high-tech urban development can store a sixth of its annual rainfall, and reuse most of the rest.

Could this be expanded to protect a whole city? The test case could be Los Angeles. With non-porous surfaces covering 70% of the city, drainage is a huge challenge. Billions of dollars have been spent digging huge drains and concreting riverbeds, but many communities still flood regularly. Meanwhile this desert city ships water from hundreds of kilometres away to fill its taps and swimming pool. Los Angeles has recently launched a new scheme to utilise floodwater in the Sun Valley section of the city. The plan is to catch the rain that falls on thousands of driveways, parking lots and rooftops in the valley. Trees will soak up water from parking lots; houses and public buildings will capture roof water to irrigate gardens and parks, and road drains will empty into old gravel pits to recharge the city's underground water reserves. Result: less flooding and more water for the city. It may sound expensive, until we realise how much is spent

trying to drain cities and protect areas from flooding, and how little this method achieves.

For questions 1-4, fill in the missing information in the numbered spaces.

Write no more than ONE WORD and / or A NUMBER for each question.

Some of the most severe floods for many centuries have recently occurred in parts of 1. _____. The Rhine and the 2. _____ rivers have experienced similar problems with water control. An area near Oxford will be flooded to protect the city of 3. _____. Planners who wish to allow water to pass more freely through city surfaces are called soft 4. _____.

For questions 5-6, choose the correct answer A, B, C, or D. Mark your answers on the answer sheet.

5. According to the article, which of these statements is true of the new approach to flood control?

- A. It aims to slow the movement of water to the sea.
- B. It aims to channel water more directly into rivers.
- C. It will cost more than twice as much as former measures.
- D. It has been tested only in The Netherlands.

6. Paragraph B contains information about ...

- A. how natural water courses in the past assisted flood control
- B. two reasons why one river was isolated from its flood plain
- C. an example of flood control on one river, affecting three countries
- D. a country which has partly destroyed one of its most typical features in order to control water

Exercise 9

NATURE WORKS POLYLACTIC ACID

A. A dozen years ago, scientists at Cargill got the idea of converting lactic acid made from corn into plastic while examining possible new uses for materials produced from corn wet milling processes. In the past, several efforts had been made to develop plastics from lactic acid, but with limited success. Achieving this technological breakthrough didn't come easily, but in time the efforts did succeed. A fermentation and distillation process using corn was designed to create a polymer suitable for a broad variety of applications.

B. As an agricultural based firm, Cargill had taken this product as far as it could by 1997. The company needed a partner with access to plastics markets and polymerization capabilities, and began discussions with The Dow Chemical Company. The next step was the formation of the joint venture that created Cargill Dow LLC. Cargill Dow's product is the world's first commercially available plastic made from annually renewable resources such as corn:

- Nature Works™ PLA is a family of packaging polymers (carbon-based molecules) made from non-petroleum based resources.
- Ingeo is a family of polymers for fibers made in a similar manner.

C. By applying their unique technology to the processing of natural plant sugars, Cargill Dow has created a more environmentally friendly material that reaches the consumer in

clothes, cups, packaging and other products. While Cargill Dow is a stand-alone business, it continues to leverage the agricultural processing, manufacturing and polymer expertise of the two parent companies in order to bring the best possible products to market.

D. The basic raw materials for PLA are carbon dioxide and water. Growing plants, like corn, take these building blocks from the atmosphere and the soil. They are combined in the plant to make carbohydrates (sucrose and starch) through a process driven by photosynthesis. The process for making Nature Works PLA begins when a renewable resource such as corn is milled, separating starch from the raw material. Unrefined dextrose, in turn, is processed from the starch.

E. Cargill Dow turns the unrefined dextrose into lactic acid using a fermentation process similar to that used by beer and wine producers. This is the same lactic acid that is used as a food additive and is found in muscle tissue in the human body. Through a special condensation process, a lactide is formed. This lactide is purified through vacuum distillation and becomes a polymer (the base for Natureworks PLA) that is ready for use through a solvent-free melt process. Development of this new technology allows the company to “harvest” the carbon that living plants remove from the air through photosynthesis. Carbon is stored in plant starches, which can be broken down into natural plant sugars. The carbon and other elements in these natural sugars are then used to make Natureworks PLA.

F. Nature Works PLA fits all disposal systems and is fully compostable in commercial composting facilities. With the proper infrastructure, products made from this polymer can be recycled back to a monomer and re-used as a polymer. Thus, at the end of its life cycle, a product made from Nature Works PLA can be broken down into its simplest parts so that no sign of it remains.

G. PLA is now actively competing with traditional materials in packaging and fiber applications throughout the world; based on the technology’s success and promise, Cargill Dow is quickly becoming a premier player in the polymers market. This new polymer now competes head-on with petroleum-based materials like polyester. A wide range of products that vary in molecular weight and crystallinity can be produced, and the blend of physical properties of PLA makes it suited for a broad range of fiber and packaging applications. Fiber and non-woven applications include clothing, fiberfill, blankets and wipes. Packaging applications include packaging films and food and beverage containers.

H. As Nature Works PLA polymers are more oil- and grease-resistant and provide a better flavor and aroma barrier than existing petroleum-based polymers, grocery retailers are increasingly using this packaging for their fresh foods. As companies begin to explore this family of polymers, more potential applications are being identified. For example, PLA possess two properties that are particularly useful for drape fabrics and window furnishings. Their resistance to ultraviolet light is particularly appealing as this reduces the amount of fading in such fabrics, and their refractive index is low, which means fabrics constructed from these polymers can be made with deep colors without requiring large amounts of dye. In addition, sportswear makers have been drawn to the product as it has an inherent ability to take moisture away from the skin and when blended with cotton and wool, the result is garments that are lighter and better at absorbing moisture.

I. PLA combines inexpensive large-scale fermentation with chemical processing to produce a value-added polymer product that improves the environment as well. The source material for PLA is a natural sugar found in plants such as corn and using such renewable feedstock presents several environmental benefits. As an alternative to traditional petroleum-based polymers, the production of PLA uses 20%-50% less fossil fuel and releases a lower amount of greenhouse gases than comparable petroleum-based plastic; carbon dioxide in the atmosphere is removed when the feedstock is grown and is returned to the earth when the polymer is degraded. Because the company is using raw materials that can be regenerated year after year, it is both cost-competitive and environmentally responsible.

For questions 1-4, fill in the missing information in the numbered spaces.

Write no more than ONE WORD and / or A NUMBER for each question.

PROCESS: POLYLACTIC ACID

Milling: Corn – 1. _____ - unrefined dextrose



2. _____ : Lactic Acid



3. _____ : Lactide



Vacuum distillation: get 4. _____



Solvent-free melting: Nature works and PLA

For questions 5-6, choose the correct answer A, B, C, or D. Mark your answers on the answer sheet.

5. Which two features of PLA are correct?

- A. It is made of renewable raw materials
- B. It involves the removal of carbon dioxide
- C. It uses renewable raw resources
- D. It is sustenance which can absorb the CO₂ in the atmosphere

6. Why did choose the PLA as material for food packaging?

- A. It smells good
- B. It can save food freshness
- C. It can be used on other materials
- D. Some other things need to be revised about it.

Exercise 10

CONSECUTIVE AND SIMULTANEOUS TRANSLATION

{A} When people are faced with a foreign-language barrier, the usual way around it is to find someone to interpret or translate for them. The term 'translation', is the neutral term used for all tasks where the meaning of expressions in one language (the source language) is turned into the meaning of another (the 'target' language), whether the medium is spoken, written, or signed. In specific professional contexts, however, a distinction is drawn between people who work with the spoken or signed language (interpreters), and those who work with the written language (translators). There are certain tasks that blur this distinction, as when source speeches turned into target

writing. But usually the two roles are seen as quite distinct, and it is unusual to find one person who is equally happy with both occupations. Some writers on translation, indeed, consider the interpreting task to be more suitable for extrovert personalities, and the translating task for introverts.

{B} Interpreting is today widely known from its use in international political life. When senior ministers from different language backgrounds meet, the television record invariably shows a pair of interpreters hovering in the background. At major conferences, such as the United Nations General Assembly, the presence of headphones is a clear indication that a major linguistic exercise is taking place. In everyday circumstances, interpreters are frequently needed, especially in cosmopolitan societies formed by new reiterations of immigrants and Gastarbeiter. Often, the business of law courts, hospitals, local health clinics, classrooms, or industrial tribunals cannot be carried on without the presence of an interpreter. Given the importance and frequency of this task, therefore, it is remarkable that so little study has been made of what actually happens when interpreting takes place, and of how successful an exercise it is.

{C} There are two main kinds of oral translation – consecutive and simultaneous. In consecutive translation the translating starts after the original speech or some part of it has been completed. Here the interpreter's strategy and the final results depend, to a great extent on the length of the segment to be translated. If the segment is just a sentence or two the interpreter closely follows the original speech. As often as not, however, the interpreter is expected to translate a long speech which has lasted for scores of minutes or even longer. In this case he has to remember a great number of messages, and keep them in mind until he begins his translation. To make this possible the interpreter has to take notes of the original messages, various systems of notation having been suggested for the purpose. The study of, and practice in, such notation is the integral part of the interpreter's training as are special exercises to develop his memory.

{D} Doubtless the recency of developments in the field partly explains this neglect. One procedure, consecutive interpreting, is very old — and presumably dates from the Tower of Babel! Here, the interpreter translates after the speaker has finished speaking. This approach is widely practiced in informal situations, as well as in committees and small conferences. In larger and more formal settings, however, it has been generally replaced by simultaneous interpreting — a recent development that arose from the availability of modern audiological equipment and the advent of increased international interaction following the Second World War.

{E} Of the two procedures, it is the second that has attracted most interest, because of the complexity of the task and the remarkable skills required. In no other context of human communication is anyone routinely required to listen and speak at the same time, preserving an exact semantic correspondence between the two modes. Moreover, there is invariably a delay of a few words between the stimulus and the response, because of the time it takes to assimilate what is being said in the source language and to translate it into an acceptable form in the target language. This 'ear-voice span' is usually about 2 or 3 seconds, but it may be as much as 10 seconds or so, if the text is complex. The brain has to remember what has just been said, attend to what is currently being said, and anticipate the construction of what is about to be said. As you start a sentence you are taking a leap in the dark, you are mortgaging your grammatical future; the original sentence may suddenly be turned in such a way that your translation of its end cannot easily be reconciled (with your translation of its start. Great nimbleness is called for

{F} How it is all done is not at all clear. That it is done at all is a source of some wonder, given the often lengthy periods of interpreting required, the confined environment of an interpreting booth, the presence of background noise, and the awareness that major decisions may depend upon the accuracy of the work. Other considerations such as cultural background also make it aim to pay full attention to the backgrounds of the authors and the recipients and to take into account differences between source and target language.

{G} Research projects have now begun to look at these factors – to determine, for example, how far successful interpreting is affected by poor listening conditions or the speed at which the source language is spoken. It seems that an input speed of between 100 and 120 words per minute is a comfortable rate for interpreting, with an upper limit of around 200 w.p.m. But even small increases in speed can dramatically affect the accuracy of output. In one controlled study, when speeds were gradually increased in a series of stages from 95 to 164 w.p.m., the ear-voice span also increased with each stage, and the amount correctly interpreted showed a clear decline. Also, as the translating load increases, not only are there more errors of commission (mistranslations, cases of vagueness replacing precision), there are also more errors of omission, as words and segments of meaning are filtered out. These are important findings, given the need for accuracy in international communication. What is needed is a more detailed identification of the problem areas, and of the strategies speakers, listeners, and interpreters use to solve them. There is an urgent need to expand what has so far been one of the most neglected fields of communication research.

For questions 1-4, fill in the missing information in the numbered spaces.

Write no more than ONE WORD and / or A NUMBER for each question.

The cycle from ear to voice normally lasts about 1. _____ or 3 seconds , which depends on the sophistication of paper, for example, it could go up to 2. _____ sometimes. When experts took close research on affecting elements, they found appropriate speaking speed is somehow among 100 to 3. _____ w.p.m. In a specific experiment, the accuracy of interpretation dropped while the ear-voice span speed increased between 95 to 164 w.p.m. However, the maximum speed was about 4. _____ W.p.m.

For questions 5-6, choose the correct answer A, B, C, or D. Mark your answers on the answer sheet.

5. In which way does author state translation at the beginning of the passage?

- A. abstract and concrete meaning
- B. general and specific meaning
- C. several examples of translation's meaning
- D. different meaning in various profession

6. Which of the following is the factor that affects interpreting?

- A. speed of incoming sound source
- B. mastery in structure and grammar of sentence in the script
- C. upper volume limit of speakers
- D. emotional states of interpreter

Answer keys.

Exercise 1

1. training
2. features
3. meaning
4. unhelpful
5. A
6. C

Exercise 2

1. ferry
2. bicycle
3. fan/fans
4. mosquitos/mosquito
5. B
6. B

Exercise 3

1. farming
2. canoes
3. birds
4. wood
5. D
6. D

Exercise 4

1. clerks
2. library
3. stability
4. pension
5. C
6. A

Exercise 5

1. discovery learning
2. teacher
3. peers
4. similar
5. B
6. A

Exercise 6

1. aid
2. business
3. communities
4. China
5. C
6. D

Exercise 7

1. infrastructure
2. spaceships
3. communication
4. laboratories
5. C
6. C

Exercise 8

1. Europe
2. Mississippi
3. London
4. Engineers
5. A
6. A

Exercise 9

1. starch
2. fermentation
3. condensation
4. polymer
5. A
6. B

Exercise 10

1. 2
2. 10 seconds
3. 120
4. 200
5. B
6. A