

Unit 5 | VALUES AND ETHICS

LESSON

Go, Kiss the World | *Subroto Bagchi*

PREPARATORY TASK

1. What role does our home environment play in our life? Mention some of the values you imbibed from watching people around you?
2. What is the importance of money in our lives? Is money essential for happiness? Can you name a few things that make you happy but that are not connected with how much money you have?
3. How do you define success? Is there a link between values and success?

INTRODUCTION

Subroto Bagchi (b. 1957) is an Indian entrepreneur and business leader. He is the co-founder of Mindtree, an Indian technology MNC.

'Go, Kiss the World' was a speech delivered by Subroto Bagchi on 2 July 2004 to students at the Indian Institute of Management, Bangalore. In a world obsessed with material things, Bagchi gives a very different perspective of success and shares the many values of life that he imbibed from his parents. In this speech, Bagchi gives an insight into the lives of his parents who were not 'rich' in the conventional sense but were rich in matters of heart, values and integrity. 'Go, Kiss the World' urges the reader to look beyond oneself, embrace the world and its people, and give back more to life than what you have taken from it.

READING PASSAGE

I was the last child of a small-time government servant, in a family of five brothers. My earliest memory of my father is as that of a District Employment Officer in Koraput, Orissa. It was, and remains as back of beyond as you can imagine. There was no electricity; no primary school nearby and water did not flow out of a tap. As a result, I did not go to school until the age of eight; I was home-schooled. My father used to get transferred every year. The family belongings fit into the back of a jeep—so the family moved from place to place and without any trouble, my Mother would set up an establishment and get us going. Raised by a widow who had come as a refugee from the then East Bengal, she was a matriculate when she married my father.

My parents set the foundation of my life and the value system, which makes me what I am today and largely, defines what success means to me today.

As District Employment Officer, my father was given a jeep by the government. There was no garage in the office, so the jeep was parked in our house. My father refused to use it to **commute** to

commute: to travel to and from one's daily work

the office. He told us that the jeep is an expensive resource given by the government—he reiterated to us that it was not ‘his jeep’ but the government’s jeep. Insisting that he would use it only to tour the interiors, he would walk to his office on normal days. He also made sure that we never sat in the government jeep—we could sit in it only when it was stationary.

That was our early childhood lesson in governance—a lesson that corporate managers learn the hard way, some never do.

The driver of the jeep was treated with respect due to any other member of my father’s office. As small children, we were taught not to call him by his name. We had to use the suffix ‘dada’ whenever we were to refer to him in public or private. When I grew up to own a car and a driver by the name of Raju was appointed—I repeated the lesson to my two small daughters. They have, as a result, grown up to call Raju, ‘Raju Uncle’—very different from many of their friends who refer to their family driver, as ‘my driver’. When I hear that term from a school- or college-going person, I cringe.

To me, the lesson was significant—you treat small people with more respect than how you treat big people. It is more important to respect your subordinates than your superiors. Our day used to start with the family huddling around my Mother’s chulha—an earthen fireplace she would build at each place of posting where she would cook for the family. There was neither gas, nor electrical stoves. The morning routine started with tea. As the brew was served, Father would ask us to read aloud the editorial page of The Statesman’s ‘mofussil’ edition—delivered one day late. We did not understand much of what we were reading. But the ritual was meant for us to know that the world was larger than Koraput district and the English I speak today, despite having studied in an Oriya medium school, has to do with that routine. After reading the newspaper aloud, we were told to fold it neatly. Father taught us a simple lesson.

He used to say, ‘You should leave your newspaper and your toilet, the way you expect to find it’. That lesson was about showing consideration to others. Business begins and ends with that simple precept.

Being small children, we were always enamoured with advertisements in the newspaper for transistor radios—we did not have one. We saw other people having radios in their homes and each time there was an advertisement of Philips, Murphy or Bush radios, we would ask Father when we could get one. Each time, my Father would reply that we did not need one because he already had five radios—alluding to his five sons.

We also did not have a house of our own and would occasionally ask Father as to when, like others, we would live in our own house. He would give a similar reply, ‘We do not need a house of our own. I already own five houses’. His replies did not gladden our hearts in that instant.

Nonetheless, we learnt that it is important not to measure personal success and sense of well-being through material possessions.

Government houses seldom came with fences. Mother and I collected twigs and built a small fence. After lunch, my Mother would never sleep. She would take her kitchen utensils and with those she and I would dig the rocky, white ant-infested surrounding. We planted flowering bushes. The white ants destroyed them. My mother brought ash from her chulha and mixed it in the earth and we

the interiors: here, far-flung areas

stationary: not moving

cringe: to shrink back in fear

huddle: to gather closely together

precept: rule of conduct

enamoured: impressed or attracted by

seldom: very rarely

planted the seedlings all over again. This time, they bloomed. At that time, my father's transfer order came. A few neighbours told my mother why she was taking so much pain to beautify a government house, why she was planting seeds that would only benefit the next occupant. My mother replied that it did not matter to her that she would not see the flowers in full bloom. She said, 'I have to create a bloom in a desert and whenever I am given a new place, I must leave it more beautiful than what I had inherited'.

That was my first lesson in success. It is not about what you create for yourself, it is what you leave behind that defines success.

My mother began developing a cataract in her eyes when I was very small. At that time, the eldest among my brothers got a teaching job at the University in Bhubaneswar and had to prepare for the civil services examination. So, it was decided that my Mother would move to cook for him and, as her **appendage**, I had to move too. For the first time in my life, I saw electricity in homes and water coming out of a tap. It was around 1965 and the country was going to war with Pakistan. My mother was having problems reading and, in any case, being Bengali, she did not know the Oriya script. So, in addition to my **daily chores**, my job was to read her the local newspaper end to end. That created in me a sense of connectedness with a larger world. I began taking interest in many different things. While reading out news about the war, I felt that I was fighting the war myself. She and I discussed the daily news and built a bond with the larger universe. In it, we became part of a larger reality. Till date, I measure my success in terms of that sense of larger connectedness. Meanwhile, the war raged and India was fighting on both fronts. Lal Bahadur Shastri, the then Prime Minister, coined the term 'Jai Jawan, Jai Kisan' and **galvanised** the nation into patriotic fervour. Other than reading out the newspaper to my mother, I had no clue about how I could be part of the action. So, after reading her the newspaper, every day I would land up near the University's water tank, which served the community. I would spend hours under it, imagining that there could be spies who would come to poison the water and I had to watch for them. I would daydream about catching one and how the next day, I would be featured in the newspaper. Unfortunately for me, the spies at war ignored the sleepy town of Bhubaneswar and I never got a chance to catch one in action. Yet, that act unlocked my imagination.

Imagination is everything. If we can imagine a future, we can create it, if we can create that future, others will live in it. That is the essence of success.

Over the next few years, my mother's eyesight dimmed but in me she created a larger vision, a vision with which I continue to see the world and, I sense, through my eyes, she was seeing too. As the next few years unfolded, her vision **deteriorated** and she was operated for cataract. I remember, when she returned after her operation and she saw my face clearly for the first time, she was astonished. She said, 'Oh my God, I did not know you were so fair'. I remain mightily pleased with that **adulation** even till date. Within weeks of getting her sight back, she developed a corneal ulcer and, overnight, became blind in both eyes. That was 1969. She died in 2002. In all those 32 years of living with blindness, she never complained about her fate even once. Curious to know what she saw with blind eyes, I asked her once if she sees darkness. She replied, 'No, I do not see darkness. I only see light even with my eyes closed'. Until she was eighty years of age, she did her morning yoga every day, swept her own room and washed her own clothes.

appendage attached to, an addition

daily chores daily regular work at home

galvanise to stimulate or rouse forcefully

deteriorate become worse

adulation praise or flattery

To me, success is about the sense of independence; it is about not seeing the world but seeing the light.

Over the many intervening years, I grew up, studied, joined the industry and began to carve my life's own journey. I began my life as a clerk in a government office, went on to become a Management Trainee with the DCM group and eventually found my life's calling with the IT industry when fourth generation computers came to India in 1981. Life took me places—I worked with outstanding people, challenging assignments and travelled all over the world.

In 1992, while I was posted in the US, I learnt that my father, living a retired life with my eldest brother, had suffered a third degree burn injury and was admitted in the Safdarjung Hospital in Delhi. I flew back to attend to him—he remained for a few days in critical stage, bandaged from neck to toe. The Safdarjung Hospital is a cockroach-infested, dirty, inhuman place. The overworked, under-resourced sisters in the burn ward are both victims and **perpetrators** of dehumanised life at its worst. One morning, while attending to my Father, I realised that the blood bottle was empty and fearing that air would go into his vein, I asked the attending nurse to change it. She bluntly told me to do it myself. In that horrible theatre of death, I was in pain and frustration and anger. Finally, when she relented and came, my Father opened his eyes and murmured to her, 'Why have you not gone home yet?' Here was a man on his deathbed but more concerned about the overworked nurse than his own state. I was stunned at his stoic self.

There I learnt that there is no limit to how concerned you can be for another human being and what the limit of inclusion is you can create.

My father died the next day. He was a man whose success was defined by his principles, his **frugality**, his universalism and his sense of inclusion.

Above all, he taught me that success is your ability to rise above your discomfort, whatever may be your current state. You can, if you want, raise your consciousness above your immediate surroundings. Success is not about building material comforts—the transistor that he never could buy or the house that he never owned. His success was about the legacy he left, the memetic continuity of his ideals that grew beyond the smallness of an ill-paid, unrecognised government servant's world.

My father was a fervent believer in the British Raj. He sincerely doubted the capability of the post-independence Indian political parties to govern the country. To him, the lowering of the Union Jack was a sad event. My mother was the exact opposite. When Subhash Bose quit the Indian National Congress and came to Dacca, my mother, then a schoolgirl, garlanded him. She learnt to spin khadi and joined an underground movement that trained her in using daggers and swords. Consequently, our household saw diversity in the political outlook of the two. On major issues concerning the world, the Old Man and the Old Lady had differing opinions.

In them, we learnt the power of disagreements, of dialogue and the essence of living with diversity in thinking.

Success is not about the ability to create a **definitive dogmatic** end state; it is about the unfolding of thought processes, of dialogue and continuum.

perpetrator: a person who commits a crime or does something serious

frugality: the attitude of spending very little money and only on things that are necessary

definitive: final; not to be changed

dogmatic: belief that one's views are correct and that everyone else should believe in them too

Two years back, at the age of eighty-two, Mother had a paralytic stroke and was lying in a government hospital in Bhubaneswar. I flew down from the US where I was serving my second stint, to see her. I spent two weeks with her in the hospital as she remained in a paralytic state. She was neither getting better nor moving on. Eventually I had to return to work. While leaving her behind, I kissed her face. In that paralytic state and a garbled voice, she said,

‘Why are you kissing me, go kiss the world.’ Her river was nearing its journey, at the confluence of life and death, this woman who came to India as a refugee, raised by a widowed mother, no more educated than high school, married to an anonymous government servant whose last salary was rupees three hundred, robbed of her eyesight by fate and crowned by adversity was telling me to go and kiss the world!

Success to me is about vision. It is the ability to rise above the immediacy of pain. It is about imagination. It is about sensitivity to small people. It is about building inclusion. It is about connectedness to a larger world existence. It is about personal tenacity. It is about giving back more to life than you take out of it. It is about creating extraordinary success with ordinary lives.

Thank you very much; I wish you good luck and God’s speed. Go! Kiss the world.

READING COMPREHENSION

A. Answer the following questions in about 50 to 100 words each.

1. Why did Bagchi’s father never let them ride in the office jeep?
2. Why did Bagchi’s mother plant gardens even though they would move often?
3. What was Bagchi’s first lesson in success?
4. Why did Bagchi have to move to Bhubaneswar?
5. How does Bagchi relate imagination to success?
6. Describe the political outlook of Bagchi’s parents.

B. Answer the following questions in about 250 to 300 words each.

1. Describe the morning ritual in Bagchi’s house and bring out its importance.
2. Describe the last days of Bagchi’s father in the hospital.
3. What created in Bagchi a sense of interconnectedness with a larger world?

VOCABULARY

Technical Vocabulary

In this lesson you’ll find a compilation of words that you will encounter in textbooks and other books related to the sciences. These words have been divided into groups discipline-wise. You will notice that some words appear in multiple fields.

Do not waste time and energy attempting to memorise the words in this list—that will serve little purpose. Instead, learn the meaning of these words, learn their correct pronunciation, and learn how they are used in context, so that you can employ them correctly in your speech and in your writing.

stint: a period of work, the period of holding an office

garbled: not clear and comprehensible

tenacity: here, keeping a firm hold of principles

General technical vocabulary

absorb, absorption, accumulation, artefact, coefficient, complement, computation, compensate, cyclic, criteria, critically, diagram, diameter, differential, encode, empirical, gram, graph, pathway, locus, prevalence, numerical, nucleus, sensitivity, sensory, statistical, technically, quantitative, qualitative, wavelength, transcribe, transmission, variance, vector, validity, scatter

Mechanical and civil engineering vocabulary

absorb, acceleration, accuracy, compensate, convergence, array, coefficient, computation, connector, congruent, crystal, cylinder, decay, deflection, degrade, deviation, diagram, diameter, differential, dimensional, displacement, elasticity, electron, friction, fusion, graph, gradient, partition, oxidize, locus, numerical, static, sphere, thermal, spatial, valve, transmit, wavelength, vector, scatter

Chemical engineering vocabulary

absorb, absorption, accumulation, carrier, aerosol, acidic, array, biodiversity, chemistry, chemotherapy, clone, cyclic, criteria, critically, crystal, cylinder, decay, defect, deficiency, degrade, diffusion, dioxide, discharge, dye, elasticity, electron, emit, empirical, encode, enzyme, epidemic, fusion, graph, helix, particle, oxygen, oxidize, metabolism, membrane, nitrogen, precipitation, precipitate, pathway, nucleus, sensory, splice, thermal, quantitative, qualitative, reactive, reactor, wavelength, transmission, scatter

Electrical engineering vocabulary

accumulation, acceleration, accuracy, convergence, array, atomic, coefficient, complement, computation, connector, cyclic, crystal, cylinder, deflection, deviation, diameter, differential, diffusion, dimensional, electron, friction, fusion, graph, gradient, pathway, locus, numerical, processor, nucleus, sphere, thermal, quantitative, qualitative, spatial, valve, transmit, wavelength, transcribe, transmission, variance, vector, scatter

Biomedical engineering vocabulary

absorb, absorption, accumulation, algorithm, accuracy, carrier, adaptation, compensate, acidic, adaptation, array, artefact, clip, clone, adverse, cyclic, criteria, decay, defect, degrade, developmental, diagnostic, discharge, displacement, dye, enzyme, epidemic, helix, hepatitis, herbicide, metabolism, membrane, pathway, locus, prevalence, sensitivity, sensory, splice, tech, thermal, quantitative, qualitative, sodium, toxic, tract, reactive, transmission, variant, vector

Computer science engineering vocabulary

algorithm, regression, variability, progression, vector, nonlinear, binary, translation, transformation, subtract, valid, validity, variance, vector, scroll, span, spatial, utility, randomly, threshold, theorem, standardize, prediction, simulation, separate, semantic, numerical, nominal, replication, robot, protocol, processor, progression, radiation, radar, pulse, loop, longitudinal, linear, matrix, mathematical, impulse magnetic, ethics, interval, manual, infinity, integral, inference, indicator, empirical, encode, differential, derivative, denominator, domain, bracket, calculus, calculator, click, axiom, axis, algebra

GRAMMAR

Common Errors in English

In the previous four units, we looked at some common errors made with reference to articles and prepositions (Unit 1), noun–pronoun agreement and subject–verb agreement (Unit 2), and misplaced modifiers and tenses (Unit 3). We have also examined a few other areas that learners of English often have problems with, such as word order and punctuation (Unit 1), and words commonly misspelt or confused (Units 2 and 3 respectively). In this lesson, we will take a quick look at some more common errors that we haven't examined before.

Faulty parallelism

In sentences that express two or more matching ideas or items in a series, make sure that the different elements are grammatically parallel.

- ✗ Subroto Bagchi urges us to be selfless and having an open mind.
- ✓ Subroto Bagchi urges us to be selfless and open-minded.
- ✓ Subroto Bagchi urges us to be selfless and have an open mind.
- ✗ Despite his age, Colonel Singh maintains his health through regular exercise, healthy diet, and getting sufficient sleep.
- ✓ Despite his age, Colonel Singh maintains his health by exercising regularly, having a healthy diet, and getting sufficient sleep.
- ✓ Despite his age, Colonel Singh maintains his health through regular exercise, healthy diet, and sufficient sleep.

Incorrect comparison

Make sure you do not compare items that are unlike each other.

- ✗ Sunny's score was similar to Shoaib.
- ✓ Sunny's score was similar to Shoaib's score.
- ✓ Sunny's score was similar to that of Shoaib.

The phrase *compared to* should not be used in a sentence that contains comparative terms such as *less*, *lower*, *few*, *fewer*, *more*, *higher*, *greater*, etc.

- ✗ Sunny's team scored more compared to Shoaib's team.
- ✓ Sunny's team scored more than Shoaib's team.

Vague pronoun references

Make sure that pronouns (such as *it*, *they*, *this*, *that*, *these*, *those*, and *which*) refer to something specific, else they will confuse the reader. If necessary, re-write sentences so that there are no unclear pronoun references.

- ✗ Since Shoaib is less interested in studying microeconomics than macroeconomics, he often neglects it.
- ✓ Since Shoaib is more interested in studying macroeconomics, he often neglects studying microeconomics.

Plural forms

In English, most singular nouns are changed into their plural forms by the addition of *-s* or *-es*. However, there are many exceptions to this.

In the case of many nouns ending in the letter *o* (for example, *mango*, *potato* and *hero*), the plural is spelt with an *-oes* ending (*mangoes*, *potatoes* and *heroes*).

- However, the plurals of some nouns of this type (for example, *mosquito*) can be spelt with either *-oes* or *-os* (*mosquitoes* and *mosquitos*).
- Some others (for example, *radio* and *photo*) are made plural only with an *-os* (*radios* and *photos*).

The final *-f* or *-fe* (in words like *thief*, *leaf* and *wife* for example) is usually changed to *-ves* (*thieves*, *leaves* and *wives*).

- But sometimes (for example, *roof* and *dwarf*), the final *-f* is retained (*roofs* and *dwarfs*—as well as *dwarves*).

We also make mistakes in the case of nouns with non-standard plural forms. Compound nouns can also cause confusion occasionally.

| Singular form | ✗ Common errors | ✓ Correct plural form |
|----------------|-------------------|-----------------------|
| woman | womans, womens | women |
| child | childs, childrens | children |
| ox | oxes | oxen |
| sheep | sheeps | sheep |
| mouse (animal) | mouses | mice |
| mother-in-law | mother-in-laws | mothers-in-law |

Numbers in compound adjectives

When a unit of measurement accompanies a number used as an adjective, then the unit of measurement should be in the singular and not the plural form.

| | | |
|--------------------|-------------------|--|
| ✗ 2-acres plot | ✓ 2-acre plot | |
| ✗ 100-metres run | ✓ 100-metre run | |
| ✗ 30-years-old man | ✓ 30-year-old man | |

Collocations

A collocation is a combination of words that are used together because it sounds 'natural' in English due to long, established usage. Knowing which words usually go together is an important part of being a competent user of the language. Look at the sentences below:

| | |
|--|--|
| ✗ She has a <u>hard</u> handshake. | ✓ She has a <u>firm</u> handshake. |
| ✗ He gave a <u>visit to</u> his grandmother. | ✓ He <u>paid a visit to</u> his grandmother. |

Unfortunately, there are no rules you can follow to arrive at the right combinations. Some can be looked up in dictionaries. For the majority, however, you will slowly figure out the right collocations by using the language—by reading widely, by listening to people, by speaking the language, and through self-correction.

Sentence fragments

A complete sentence contains both a subject (what or whom the sentence is about) and a predicate (which tells us something about the subject or expresses an action). When either the subject or the main verb is missing, the result is a sentence fragment—which should be avoided in formal writing.

- ✗ Kala didn't do well in the exam. Because she did not study.
- ✓ Kala didn't do well in the exam because she did not study.

Comma splices

A comma splice is the use of a comma to link two independent clauses which should instead be linked by a colon, semicolon or conjunction—or separated into two sentences.

- ✗ Lakshmi didn't finish her homework, she was playing video games.
- ✓ Lakshmi didn't finish her homework. She was playing video games.
- ✓ Lakshmi didn't finish her homework; she was playing video games.
- ✓ Lakshmi didn't finish her homework **because** she was playing video games.

Missing bracketing commas

Sentences sometimes contain parenthetical phrases or clauses—expressions that provide additional information, but which can be removed from the sentence without changing the meaning or grammar of the original sentence. Such parenthetical expressions should be set off by a *pair* of bracketing commas. Perhaps the most common error with regard to commas is forgetting to insert one (or both) of the two bracketing commas that mark parenthetical expressions.

- ✗ One of my brothers, Jagan lives in Delhi
- ✓ One of my brothers, Jagan, lives in Delhi
- ✗ Parvathi the class topper, wants to be an entrepreneur.
- ✓ Parvathi, the class topper, wants to be an entrepreneur.
- ✗ Subroto Bagchi who co-founded a multinational company came from humble beginnings.
- ✓ Subroto Bagchi, who co-founded a multinational company, came from humble beginnings.

EXERCISES

A. In each pair of sentences, tick the sentence that is correctly structured.

1. a. The bag was so heavy that I could not carry it.
b. The bag was very heavy that I could not carry it.
2. a. Where you are staying?
b. Where are you staying?
3. a. Satish went to hospital to get his blood pressure checked.
b. Satish went to the hospital to get his blood pressure checked.
4. a. Salma gave the bracelet to me.
b. Salma gave to me the bracelet.

5. a. The salesperson asked the customer what she was looking for.
b. The salesperson asked the customer what she is looking for.
6. a. We not only have to book our tickets but also arrange for accommodation.
b. We have to not only book our tickets but also arrange for accommodation.
7. a. The traffic in Bangalore is worse than that of Hyderabad.
b. The traffic in Bangalore is worse than Hyderabad.
8. a. Saba avoided meeting people.
b. Saba avoided to meet people.

B. Give the plural form of the following words. If a word has two plural forms, give both.

- | | | | |
|----------|-----------|------------|------------|
| 1. scarf | 3. fungus | 5. baby | 7. piano |
| 2. axis | 4. valley | 6. antenna | 8. nucleus |

C. Choose the correct collocation in each of the given pairs.

- | | |
|---------------------------|------------------------|
| 1. honest apology | sincere apology |
| 2. speak fluent English | speak easy English |
| 3. complete a promise | fulfil a promise |
| 4. preside a meeting | chair a meeting |
| 5. do a mistake | make a mistake |
| 6. play a part | do a part |
| 7. have a conversation | make a conversation |
| 8. have conversation with | make conversation with |

D. The sentences below contain errors of different kinds. Re-write each sentence correctly.

1. She said me that she likes maths.
2. She does not listen me.
3. Tell to me why you are late.
4. My cell phone was under the sofa which rang all night long.
5. Working in the lab for hours, my feet began to hurt.
6. I am telling my students all the time not to talk.
7. Hydrogen is known for it's properties of being the colourless, odourless and tasteless.
8. Please explain me this problem.

E. Complete the following sentences by choosing the correct option.

1. Subroto and his mother collected twigs and _____ a fence.
(a) build (b) built (c) was building
2. Subroto's mother _____ cataract in her eyes when he was still quite young.
(a) was developing (b) has developed (c) developed
3. She did not _____ for the test last month.
(a) sat (b) sit (c) keep sitting
4. She would have succeeded if she _____ harder.
(a) had tried (b) have tried (c) tried

5. Although she _____, she was not disheartened.
 (a) failed (b) has failed (c) was failing
6. Jobin _____ not have a car. He takes the bus to work.
 (a) do (b) did (c) does

F. Re-write the following dialogue by correcting the errors in it.

Abida This dish is lovely! Whats in it?

Sanaz I do'nt know really. The father made it. But I do know that its the very simple dish.

Abida I guess there's a sugar, may be the dash of lemon juice, and vanilla essence.

Sanaz I did see him adding an small cup of honey too.

Abida You must ask him about ingredients.

Sanaz Sure. I will be asking him and giving to you a recipe.

READING

Reading Comprehension Practice

Tests of reading comprehension usually ask you questions on the following:

- Your general understanding of the content
- Your understanding of specific pieces of information or sections of the text
- The author's opinions and point of view
- What may be inferred from the passage (as opposed to what is explicitly stated)

Always read the entire passage before attempting to answer questions set on it.

EXERCISES

- A. Read the following texts. Answer the questions that follow in just one sentence each. Keep your answers brief, but at the same time clear and complete.

Passage 1

A generator is essentially just an electric motor working in reverse. An electric motor consists of a tight coil of copper wire wrapped around an iron core that's free to rotate at high speed inside a powerful permanent magnet. When you feed electricity into the copper coil, it becomes a temporary, electrically powered magnet—in other words, an electromagnet—and generates a magnetic field all around it. This temporary magnetic field pushes against the magnetic field that the permanent magnet creates and forces the coil to rotate. By a bit of clever design, the coil can be made to rotate continuously in the same direction, spinning round and round and powering anything from an electric toothbrush to an electric train.

So how is a generator different? Suppose you have an electric toothbrush with a rechargeable battery inside. Instead of letting the battery power the motor that pushes the brush, what if you did the opposite? What if you turned the brush back and forth repeatedly? What you'd be doing would be manually turning the electric motor's axle. That would make the copper coil inside the motor turn around repeatedly inside its permanent magnet. If you move an electric wire inside a magnetic field, you make electricity flow through the wire—in effect, you generate electricity. Keep turning the toothbrush long enough and, in theory, you would generate enough electricity to recharge its battery. That, in effect, is how a generator works.

1. What is this text about?
2. Where are electric motors used?
3. How can you create a simple electromagnet?
4. What is the purpose of a generator?
5. Mention two differences between a generator and an electric motor.
6. Is the author's personal opinion on the subject mentioned in the text? (If yes, what is it?)

Passage 2

I think that at that time none of us quite believed in the Time Machine. The fact is, the Time Traveller was one of those men who are too clever to be believed: you never felt that you saw all round him; you always suspected some subtle reserve, some ingenuity in ambush, behind his lucid frankness. Had Filby shown the model and explained the matter in the Time Traveller's words, we should have shown him far less scepticism. For we should have perceived his motives: a pork-butcher could understand Filby. But the Time Traveller had more than a touch of whim among his elements, and we distrusted him. Things that would have made the fame of a less clever man seemed tricks in his hands. It is a mistake to do things too easily. The serious people who took him seriously never felt quite sure of his deportment; they were somehow aware that trusting their reputations for judgment with him was like furnishing a nursery with eggshell china. So I don't think any of us said very much about time travelling in the interval between that Thursday and the next, though its odd potentialities ran, no doubt, in most of our minds: its plausibility, that is, its practical incredibility, the curious possibilities of anachronism and of utter confusion it suggested. For my own part, I was particularly preoccupied with the trick of the model.

—H.G. Wells, *The Time Machine*

1. What do you think this text about?
 2. What do you think is the narrator's opinion about the Time Traveller?
 3. Why does the narrator say 'It's a mistake to do things too easily'?
 4. What does the phrase 'furnishing a nursery with eggshell china' mean in this context?
 5. From this excerpt, what impressions do you form about the narrator, Filby and the Time Traveller?
- B. Read the passage given below, and say whether the statements that follow about the author's opinions are TRUE or FALSE.

It is worth saying something about the social position of beggars, for when one has consorted with them, and found that they are ordinary human beings, one cannot help being struck by the curious attitude that society takes towards them. People seem to feel that there is some essential difference between beggars and ordinary 'working' men. They are a race apart—outcasts, like criminals and prostitutes. Working men 'work', beggars do not 'work'; they are parasites, worthless in their very nature. It is taken for granted that a beggar does not 'earn' his living, as a bricklayer or a literary critic 'earns' his. He is a mere social excrescence, tolerated because we live in a humane age, but essentially despicable.

Yet if one looks closely, one sees that there is no essential difference between a beggar's livelihood and that of numberless respectable people.

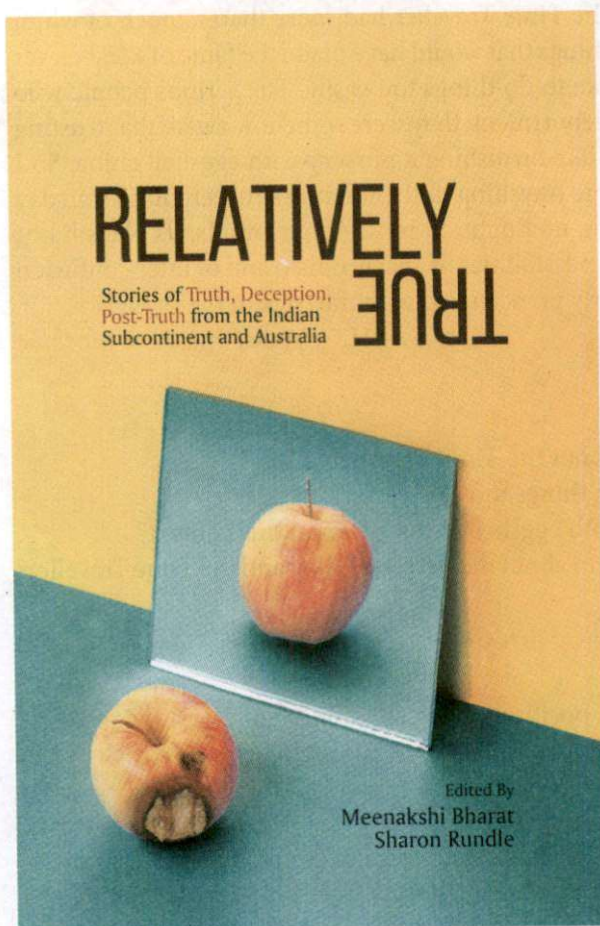
Beggars do not work, it is said; but, then, what is work? A navy works by swinging a pick. An accountant works by adding up figures. A beggar works by standing out of doors in all weathers and getting varicose veins, chronic bronchitis, etc. It is a trade like any other; quite useless, of course—but, then, many reputable trades are quite useless.

—George Orwell

The author of the above passage, George Orwell, thinks/believes/feels that...

1. Beggars are similar to criminals.
2. People treat beggars as being outside of society.
3. Society sees no difference between a beggar's livelihood and those of most other people.
4. Beggars do not work to earn their income.
5. The prevailing social attitude towards beggars is prejudiced.
6. Beggars are parasites.
7. Most occupations have no inherent value in themselves.
8. It is despicable to tolerate beggars.
9. People are justified in their disdain towards those who earn a living through begging.
10. Beggars are a race apart from other people.

C. Given below is the brochure of a recently published book. Answer the questions that follow.



Relatively True is a vibrant collection of short stories that reflects on the porous boundaries separating lies, half-truths, and the truth. We live in a world of elastic truth, click-bait, disinformation and fake identities. Opinions, beliefs and conspiracy theories clamour to be given equal time and weight with facts. Whose truth is more relevant and meaningful—yours or mine? The stories in *Relatively True* confront and address this question, and more, in surprising and inventive ways. Each narrative probes the vexing impact that fluctuating ideas of truth have on us. From self-deception to trickery on a wider scale, this anthology of short fiction from Australia and South Asia enchants, provokes and enlightens, from the first story to the last.

FEATURING Shirley Hazzard, Eugen Bacon, Gulzar, Meenakshi Bharat, Alex Cothren, Tony Birch, Devika Brendon, Sharon Rundle, Cate Kennedy, Anne Benjamin, Sujata Sankranti, Kate Grenville, Priya Sarukkai Chabria, Andrew Kwong, Mitra Phukan, Bashabi Fraser, Yasmine Gooneratne, Rashida Murphy, Sunil Badami, Niharika Chibber Joe & Matthew M. Lupton, Susanne Gervay, Janhavi Acharekar, Gayatri Gill, and Julia Prendergast

1. What do you think the book is about?
2. Who are the editors of the book? What do you think was the task of the editors?
3. What are the themes the book covers?
4. How is the image of the apple connected to the theme of the book?
5. Who are the likely readers of this book?

WRITING

Report Writing

A report is a piece of writing that presents an account of an event, situation or process. It is usually prepared to provide information on and/or announce the result of an investigation, experience or finding. A report must be written in clear, simple language and in a direct style. When writing a report, be clear about the following things:

- what the report is about
- who it is meant for
- what it will be used for

TYPES OF REPORTS

Reports can be of many types, depending on the reason why the subject was studied and the purpose for which the report will be used.

Feasibility reports

These reports study whether a project should be undertaken or not. For example, a university may commission a feasibility report to decide if they should add a new course or a stream of study. The report will cover the scope and the infrastructure needed, including personnel.

Progress reports

A progress report spells out the progress that a project has made. It helps the people in charge understand the status of all aspects of a project. These reports are usually commissioned at fixed intervals, say weekly or monthly, depending on the duration of the project.

Incident reports

An incident report is an objective description of an incident that provides the facts to someone who was not present. The event should be described in chronological order so it is clear to the reader what the sequence of events was. Facts rather than opinions should be presented in an incident report.

Marketing reports

These reports provide an overview of the marketing efforts undertaken for a particular product. It may begin with the goals and objectives of the marketing campaign, the methods adopted and the outcome of the efforts. The conclusion spells out the effectiveness of the marketing efforts.

ELEMENTS OF A REPORT

Most reports have some or all of the elements listed below.

Opening page or title page

The first page will have the title of the report, the writer's name, designation and institutional affiliation, funding agency (if any) and date.

Abstract

The abstract is a very brief summary of what the report is about. Besides a summary, the abstract should state the principle or hypothesis on which the work is based, list its important findings and state the conclusion it led to.

Table of contents

The table of contents lists the numbered sections, subsections and its constituent parts.

Introduction

The first main section of a technical report is the introduction. This should begin with the background of the study, which will include how it is related to the work done by others and a literature review of publications on the subject. It tells the reader why the study is being done and describes in detail the nature and scope of the problem as well as the theoretical approach, experimental methods and procedures used. The introduction should end with an outline of the objectives of the study. Introductions in technical reports are usually written in the present tense using the first-person pronouns 'I', 'we' and 'our'. Introductions may be from one to several pages long.

Literature review

The literature review should be accurately documented in the recommended style with all the necessary details, such as the complete name of the author, the year of publication, the journal where published, the volume number, etc., for articles, and the place of publication. When citing the work of others in the text, give only the last name of the author and the year of publication within parentheses and provide the complete details in the reference list at the end of the report.

Body of the report

The introduction is followed by the sections forming the body of the report. This presents the findings/details of the study, which are organised under numbered main headings, subheadings and sub-subheadings.

Results, discussion and conclusion

The body of the report is followed by the sections on results, discussion and conclusion. You can present the outcome of your research, experiment, etc., in the results section. Sometimes this section is combined with the discussion section, where you interpret the results. The conclusion should relate to the aims of the work as stated in the introduction.

References and appendices

Appendices are meant for materials not included in the body of the report but pertinent to it, for example data. References lists out all the material consulted for preparation of the report and that support the data presented in the report

Figures and tables

Where included, figures and tables must have captions with sources if they are taken from a published book or article.

REPORT FORMATS

Reports may be written in one of several formats, depending on the subject of the report and what purpose it is meant for.

Memo format

The memo format is usually a report that is sent to someone within the same organisation as a memo, so that the report can be discussed and its recommendations implemented. It is formatted in the same way as an inter-office memorandum. It is characterised by brevity.

Date: 10 October 2022

To: All teachers of Mathematics Department

From: Head of Mathematics Department

Re: Admission for MSc courses

The Principal called for a meeting of all the Heads of Department on 4 October 2022 to discuss admission criteria for postgraduate courses.

The following decisions were taken:

- Students with undergraduate degrees in subjects other than mathematics may be considered for admission to MSc Mathematics provided they pass the entrance examination with 50% marks.
- Scholarships may be offered to those whose family income is less than Rs 2 lakhs per annum and who score at least 40% marks in the entrance examination.
- Fee waivers may be offered to those whose family income is between Rs 2 lakhs and Rs 4 lakhs per annum and who score at least 50% marks in the entrance examination.
- These criteria will be published on the website of our college.

You are requested to share this information with students.

Signed

Dr Surabhi Das

Letter format

The letter format is usually a concise report for the use of people outside an organisation. This type of report is formatted like a formal letter but has additional headings and footnotes that pertain to the report. In the following pages, you will find two examples of reports written in the letter format.

All Style Fashion

12, PALGHAR ROAD, NALA SOPARA, THANE, MUMBAI 401 203

31 October 2022

The Managing Director
All Style Fashion
12, Palghar Road,
Nala Sopara, Thane,
Mumbai 401 203

Re: Retail sales outlet

Dear sir,

Further to our meeting last week to discuss sales outlets for our product, I undertook an evaluation of

- Feasibility of opening retail outlets;
- Location of retail outlet; and
- Infrastructure required.

Feasibility

As of now All Style Fashion does not have any outlets. As a result, it is dependent on other retailers and wholesalers to showcase and sell its products. If we can lease a showroom, it would give us greater opportunity to publicise and sell our products. We can also consider the possibility of co-branding. Both are feasible options since the expenditure on location and publicity can be recovered from the MRP of the product.

Location

We can lease a 400-square foot shop in a lane just off the main road. The rent will be lower than on the main road but proximity to the main road will ensure footfall.

Infrastructure

We will need to refurbish the shop with shelves and a glass front, as well as regular window dressing. In addition, we will need to hire at least two sales personnel and one person to manage billing.

Recommendations

I recommend that we open at least one retail outlet close to our office to start with, and then expand to have three outlets in Mumbai and two outlets in Delhi over the next five years.

Please let me know if you would like to discuss these points further. I have documents to support the points mentioned here.

Yours sincerely,
Ramya Kada
Ramya Kada

From:

Deepan John
District Education Inspector
Jalandhar

Date: 15 May 2016

To:

Dr Shashi Prakash
Chief Education Officer
District Centre, Department of Education
Jalandhar

Title: Primary education programme

Terms of reference: As instructed by the Minister of State for Education, a survey was conducted to assess the implementation of the government's 2010–2015 primary education programme in four villages in the district.

Findings: The writer visited the four villages of Allowal, Chhokran, Sidhwan and Virk to observe and assess the programme. The findings of the study are as follows.

1. According to records maintained in the local panchayat offices, the number of students who enrolled in 2010–2011 increased from 23 to 50 in Allowal, 14 to 47 in Chhokran, 22 to 70 in Sidhwan and 30 to 95 in Virk.
2. While a dropout of 7% was reported in Chhokran, the other villages were able to retain their initial strength for the entire course of the academic session.
3. It was confirmed that the mid-day meal scheme was being satisfactorily implemented in all the four villages.
4. Except for three cases in Allowal, primary schools in the villages had all the students vaccinated for typhoid and cholera.
5. It was verified that the free distribution of books and stationery was done in all four villages as per the records.

Conclusion and recommendations: The government's programme for improving primary education in the state seems to have succeeded in Jalandhar district. It is recommended that permission be granted for the recruitment of more trained teachers and for the sanction of funds for the renovation of school buildings in the villages where this study was conducted.

D John

Deepan John

Manuscript format

The manuscript format is used for long, formal reports. It contains detailed information on the subject of the report. It is highly structured, and includes preliminary and end material like an abstract, list of key words, glossary, appendix, etc.

Given below are excerpts from a technical report written in manuscript format.

REPORT
on
 THE EFFECTS OF INCREASED ATMOSPHERIC CARBON DIOXIDE
submitted to

Mr David McMurrey, Chairman
 Coastal Real-Estate Developers Association
 Corpus Christi, Texas

by
 ENVIRONMENTAL RESEARCH ASSOCIATES, INC.

9 December 1982

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ABSTRACT

Since the Industrial Revolution, man has introduced tremendous amounts of carbon dioxide into the earth's atmosphere ... As temperatures increase, atmospheric circulation patterns are altered, which will change local weather patterns.

These changes could have an enormous impact on agricultural production. ... This will result in a rise in sea level which would flood coastal areas including major population centres. ... However, not much hope is held out for these remedies.

Given below are excerpts from the main sections of the report.

I. INTRODUCTION

Before the year 2020, the climate of the earth may be warmer than any time in the past thousand years. This change, ... is responsible for what is commonly known as the greenhouse effect. The fact that changes in CO₂ concentrations in the atmosphere could cause changes in the earth's climate has been known for over one hundred years. However, ... The most ominous of the effects ... patterns ... effects on agricultural production in a world that is already unable to adequately feed its citizens today ... It is obvious that the continued introduction of CO₂ into the atmosphere will have consequences far worse than producing a slightly balmy climate.

The purpose of this report is to examine ... That the mean global temperature will increase in the next few decades is certain. The only questions are how much and how fast.

II. NATURAL WEATHER PATTERNS

The earth's climate naturally changes over extended periods of time. ... They were formed 15 to 20 million years ago in the Antarctic and perhaps as recently as 3 to 5 million years in the Arctic. The climate is still dominated by natural cycles of warming and cooling ... This current cooling trend would mask any warming caused by an increased greenhouse effect.

However, the 180-year cycle predicts a natural warming trend will begin ... Figure 1 shows the combined effects of these warming trends.

III. MECHANISMS OF THE GREENHOUSE EFFECT

For the mean global temperature to stay constant, the earth-atmosphere system must be in radiative equilibrium with the sun. In other words, ... This radiation primarily takes place ... which is in the infrared portion of the electromagnetic spectrum.

Natural greenhouse effect

The effective radiating temperature is the ... The difference of 340°C is caused by a natural greenhouse effect that takes place in the atmosphere [11] ... The magnitude of the greenhouse effect is defined as the difference between the upward infrared radiation from the surface and the upward infrared radiation from the top of the atmosphere [2:755].

Radiation absorption by carbon dioxide and water vapour

The greenhouse effect is caused by minor constituents in the atmosphere, mainly carbon dioxide and water vapour ... This increased absorption results in an overall warming of the earth atmosphere system.

Positive feedback mechanisms

As the climate becomes warmer, ... which causes another increase in temperature. Even more threatening is the ... At the same time, the ... atmosphere. This positive feedback mechanism approximately doubles the sensitivity of surface temperature to a change in the amount of energy absorbed by the earth [1:19].

IV. THE CARBON CYCLE

The annual increase of carbon dioxide in the atmosphere is dependent on several factors. First ... Also contributing to ... Approximately 50% of the ... the mechanisms of CO₂ removal are poorly understood.

CO₂ from fossil fuel

Since the advent of the Industrial Revolution, ... has increased at an exponential rate of 4.3% per year from 1860 to the mid-1970s. (See Table 1.) High energy costs should help to slow ... although no significant reductions in demand have yet been observed.

It is expected that ... especially in developing countries. The percentage of CO₂ produced by geographical regions in 1974 and the projected contribution expected in 2025 is listed in Table 2. Even though ... the amount produced by developing regions in the same time will more than triple [4].

V. CLIMATIC EFFECTS OF INCREASED CO₂ CONCENTRATIONS

Current estimates for ... in the greenhouse effect over the poles. This warming then increases the water vapour present by melting ice, which causes the process to be self-enhancing.

Changes in local weather patterns

As the temperature of the atmosphere is increased, the global circulation patterns will be shifted ... One method that can be used is to examine weather records for a period when the temperature was higher than it is today.

Drought

The most significant feature of a warmer climate is ... If the atmospheric circulation patterns of the 1930s return early next century because of warmer temperatures, agricultural production and water supplies could be seriously affected ... could be devastated by a drought that lasts several years.

Sea level increase

Researchers have suggested that conditions similar to those ... The polar ice caps would begin to melt, raising the sea level ... The 15- to 25-foot raising of sea levels is for normal tides with storm tides reaching even farther inland [4].

VI. WAYS TO REDUCE GREENHOUSE EFFECT

The severity of the consequences of this major climatic change requires that ... Unfortunately, the political structure of the world tends to impede cooperation on a global scale ... and stimulate action by taking decisive measures. Some of the steps that need to be taken are:

1. A concerted effort must be made to ... development of alternate energy sources.
2. The use of a combination of fossil fuels that will ... use of natural gas emphasised.
3. ...

VII. SUMMARY

Carbon dioxide accumulation in the atmosphere is the most dangerous pollution problem today. This excess of CO₂ will cause ... The results ... and a rise in the sea level caused by melting of the polar ice caps. To lessen the severity of the problem, ... Also, a global reforestation programme should be undertaken to ... in the next few decades.

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EXERCISES

Prepare a report on any two of the following situations. Choose a suitable format for your report.

1. A scooter manufacturing company asks an agency to prepare a marketing report on how to improve the sales of its latest model of scooter.
2. You had been asked to do a survey of student preferences for elective courses in your university. You had submitted a report six months ago. Repeat the survey and prepare a progress report on the subject, listing out changes in preferences, if any.
3. The road near your house has been seeing an increase in traffic. Prepare a feasibility report to be submitted to the local corporation office, showing how the traffic may be diverted during peak hours to other roads.
4. Present the annual report of your college's cultural association in about 400–500 words. The report could mention its purpose, the members of its organising committee, its activities, and plans for the coming year.
5. Imagine that you are an education officer with the State Council of Higher Education. You have been asked by the secretary of the council to investigate rumours of cheating in three examination centres during the 2015 examinations. Write an official report, presenting facts and making recommendations.

- B. 1. scarves, scarfs
2. axes
3. fungi, funguses
4. valleys
5. babies
6. antennas, antennae
7. pianos
8. nuclei, (less commonly) nucleuses
- C. 1. sincere apology
2. speak fluent English
3. fulfil a promise
4. chair a meeting
5. make a mistake
6. play a part
7. have a conversation
8. make conversation with
- D. 1. She said that she likes maths.
2. She does not listen to me.
3. Tell me why you are late.
4. My cell phone, which rang all night long, was under the sofa.
5. My feet began to hurt because I had been working in the lab for hours. [Note: There is more than one correct way to re-write this sentence. The key change is to introduce 'I' into the sentence to correct the dangling modifier.]
6. I tell my students all the time not to talk.
7. Hydrogen is known for [optional its properties of] being colourless, odourless and tasteless.
8. Please explain this problem to me.
- E. 1. (b) built
2. (c) developed
3. (b) sit
4. (a) had tried
5. (a) failed
6. (c) does
- F. Abida This dish is lovely! What's in it?
Sanaz I don't really know. Father made it. But I do know that it's a very simple dish.
Abida I guess there's sugar, maybe a dash of lemon juice, and vanilla essence.
Sanaz I did see him adding a small cup of honey, too.
Abida You must ask him about the ingredients.
Sanaz Sure. I will ask him and give you the recipe.

READING

Reading Comprehension Practice

- B. 1. false
2. true
3. false
4. false
5. true
6. false
7. true
8. false
9. false
10. false

