

READING PASSAGE 1

You should spend about 20 minutes on Questions 1 – 13 which are based on Reading Passage 1 below.

ABSENTEEISM IN NURSING: A LONGITUDINAL STUDY

Absence from work is a costly and disruptive problem for any organisation. The cost of absenteeism in Australia has been put at 1.8 million hours per day or \$ 1400 million annually. The study reported here was conducted in the Prince William Hospital in Brisbane, Australia, where, prior to this time, few active steps had been taken to measure, understand or manage the occurrence of absenteeism.

Nursing Absenteeism

A prevalent attitude amongst many nurses in the group selected for study was that there was no reward or recognition for not utilising the paid sick leave entitlement allowed them in their employment conditions. Therefore, they believed they may as well take the days off – sick or otherwise. Similar attitudes have been noted by James (1989), who noted that sick leave is seen by many workers as a right, like annual holiday leave.

Miller and Norton (1986), in their survey of 865 nursing personnel, found that 73 per cent felt they should be rewarded for not taking sick leave, because some employees always used their sick leave. Further, 67 per cent of nurses felt that administration was not sympathetic to the problems shift work causes to employees' personal and social lives. Only 53 per cent of

the respondents felt that every effort was made to schedule staff fairly.

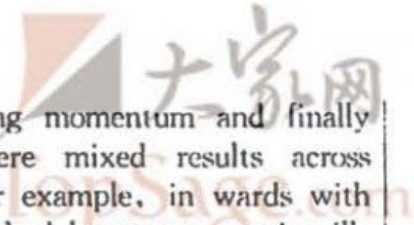
In another longitudinal study of nurses working in two Canadian hospitals, Hackett, Bycio and Guion (1989) examined the reasons why nurses took absence from work. The most frequent reason stated for absence was minor illness to self. Other causes, in decreasing order of frequency, were illness in family, family social function, work to do at home and bereavement.

Method

In an attempt to reduce the level of absenteeism amongst the 250 Registered and Enrolled Nurses in the present study, the Prince William management introduced three different, yet potentially complementary, strategies over 18 months.

Strategy 1: Non-financial (material) incentives

Within the established wage and salary system it was not possible to use hospital funds to support this strategy. However, it was possible to secure incentives from local businesses, including free passes to entertainment parks, theatres, restaurants, etc. At the end of each roster period, the ward with the lowest



absence rate would win the prize.

Strategy 2: Flexible fair rostering Where possible, staff were given the opportunity to determine their working schedule within the limits of clinical needs.

Strategy 3: Individual absenteeism and counselling

Each month, managers would analyse the pattern of absence of staff with excessive sick leave (greater than ten days per year for full-time employees). Characteristic patterns of potential 'voluntary absenteeism' such as absence before and after days off, excessive weekend and night duty absence and multiple single days off were communicated to all ward nurses and then, as necessary, followed up by action.

Results

Absence rates for the six months prior to the incentive scheme ranged from 3.69 per cent to 4.32 per cent. In the following six months they ranged between 2.87 per cent and 3.96 per cent. This represents a 20 per cent improvement. However, analysing the absence rates on a year-to-year basis, the overall absence rate was 3.60 per cent in the first year and 3.43 per cent in the following year. This represents a 5 per cent decrease from the first to the second year of the study. A significant decrease in absence over the two-year period could not be demonstrated.

Discussion

The non-financial incentive scheme did appear to assist in controlling absenteeism in the short term. As the scheme progressed it became harder to secure prizes and this contributed to

the program's losing momentum and finally ceasing. There were mixed results across wards as well. For example, in wards with staff members who had long-term genuine illness, there was little chance of winning, and to some extent the staff on those wards were disempowered. Our experience would suggest that the long-term effects of incentive awards on absenteeism are questionable.

Over the time of the study, staff were given a larger degree of control in their rosters. This led to significant improvements in communication between managers and staff. A similar effect was found from the implementation of the third strategy. Many of the nurses had not realised the impact their behaviour was having on the organisation and their colleagues but there were also staff members who felt that talking to them about their absenteeism was 'picking' on them and this usually had a negative effect on management - employee relationships.

Conclusion

Although there has been some decrease in absence rates, no single strategy or combination of strategies has had a significant impact on absenteeism per se. Notwithstanding the disappointing results, it is our contention that the strategies were not in vain. A shared ownership of absenteeism and a collaborative approach to problem solving has facilitated improved cooperation and communication between management and staff. It is our belief that this improvement alone, while not tangibly measurable, has increased the ability of management to manage the effects of absenteeism more effectively since this study.

This article has been adapted and condensed from the article by G. William and K. Slater (1996), 'Absenteeism in nursing: A longitudinal study', *Asia Pacific Journal of Human Resources*, 34 (1): 111 - 21. Names and other details have been changed and report findings may have been given a different emphasis from the original. We are grateful to the authors and *Asia Pacific Journal of Human Resources* for allowing us to use the material in this way.

Questions 1 – 7

Do the following statements agree with the information given in Reading Passage 1?

In boxes 1 – 7 on your answer sheet write

YES if the statement agrees with the information

NO if the statement contradicts the information

NOT GIVEN if there is no information on this in the passage

1. The prince William Hospital has been trying to reduce absenteeism amongst nurses for many years.
2. Nurses in the Prince William Hospital study believed that there were benefits in taking as little sick leave as possible.
3. Just over half the nurses in the 1986 study believed that management understood the effects that shift work had on them.
4. The Canadian study found that 'illness in the family' was a greater cause of absenteeism than 'work to do at home'.
5. In relation to management attitude to absenteeism the study at the Prince William Hospital found similar results to the two 1989 studies.
6. The study at the Prince William Hospital aimed to find out the causes of absenteeism amongst 250 nurses.
7. The study at the Prince William Hospital involved changes in management practices.

Questions 8 – 13

Complete the notes below.

*Choose **ONE OR TWO WORDS** from the passage for each answer.*

Write your answers in boxes 8 – 13 on your answer sheet.

In the first strategy, wards with the lowest absenteeism in different periods would win prizes donated by... (8) ...

In the second strategy, staff were given more control over their ... (9) ...

In the third strategy, nurses who appeared to be taking... (10) ...sick leave or... (11) ...were identified and counselled.

Initially, there was a... (12) ...per cent decrease in absenteeism.

The first strategy was considered ineffective and stopped. The second and third strategies generally resulted in better... (13) ...among staff.

READING PASSAGE 2

You should spend about 20 minutes on Questions 14 – 26 which are based on Reading Passage 2 below.

THE MOTOR CAR

- A** There are now over 700 million motor vehicles in the world – and the number is rising by more than 40 million each year. The average distance driven by car users is growing too – from 8 km a day per person in western Europe in 1965 to 25 km a day in 1995. This dependence on motor vehicles has given rise to major problems, including environmental pollution, depletion of oil resources, traffic congestion and safety.
- B** While emissions from new cars are far less harmful than they used to be, city streets and motorways are becoming more crowded than ever, often with older trucks, buses and taxis, which emit excessive levels of smoke and fumes. This concentration of vehicles makes air quality in urban areas unpleasant and sometimes dangerous to breathe. Even Moscow has joined the list of capitals afflicted by congestion and traffic fumes. In Mexico City, vehicle pollution is a major health hazard.
- C** Until a hundred years ago, most journeys were in the 20 km range, the distance conveniently accessible by horse. Heavy freight could only be carried by water or rail. The invention of the motor vehicle brought personal mobility to the masses and made rapid freight delivery possible over a much wider area. Today about 90 per cent of inland freight in the United Kingdom is carried by road. Clearly the world cannot revert to the horse-drawn wagon. Can it avoid being locked into congested and polluting ways of transporting people and goods?
- D** In Europe most cities are still designed for the old modes of transport. Adaptation to the motor car has involved adding ring roads, one-way systems and parking lots. In the United States, more land is assigned to car use than to housing. Urban sprawl means that life without a car is next to impossible. Mass use of motor vehicles has also killed or injured millions of people. Other social effects have been blamed on the car such as alienation and aggressive human behaviour.
- E** A 1993 study by the European Federation for Transport and Environment found that car transport is seven times as costly as rail travel in terms of the external social costs it entails such as congestion, accidents, pollution, loss of cropland and natural habitats, depletion of oil resources, and so on.

Yet cars easily surpass trains or buses as a flexible and convenient mode of personal transport. It is unrealistic to expect people to give up private cars in favour of mass transit.

F Technical solutions can reduce the pollution problem and increase the fuel efficiency of engines. But fuel consumption and exhaust emissions depend on which cars are preferred by customers and how they are driven. Many people buy larger cars than they need for daily purposes or waste fuel by driving aggressively. Besides, global car use is increasing at a faster rate than the improvement in emissions and fuel efficiency which technology is now making possible.

G One solution that has been put forward is the long-term solution of designing cities and neighbourhoods so that car journeys are not necessary – all essential services being located within walking distance or easily accessible by public transport. Not only

would this save energy and cut carbon dioxide emissions, it would also enhance the quality of community life, putting the emphasis on people instead of cars. Good local government is already bringing this about in some places. But few democratic communities are blessed with the vision – and the capital – to make such profound changes in modern lifestyles.

H A more likely scenario seems to be a combination of mass transit systems for travel in-to and around cities, with small ‘low emission’ cars for urban use and larger hybrid or lean burn cars for use elsewhere. Electronically tolled highways might be used to ensure that drivers pay charges geared to actual road use. Better integration of transport systems is also highly desirable—and made more feasible by modern computers. But these are solutions for countries which can afford them. In most developing countries, old cars and old technologies continue to predominate.

Questions 14 – 19

Reading Passage 2 has eight paragraphs (A – H). Which paragraphs concentrate on the following information? Write the appropriate letters (A – H) in boxes 14 – 19 on your answer sheet.

NB You need only write **ONE** letter for each answer.

14. a comparison of past and present transportation methods
15. how driving habits contribute to road problems
16. the relative merits of cars and public transport
17. the writer's own prediction of future solutions
18. the increasing use of motor vehicles
19. the impact of the car on city development

Questions 20 – 26

Do the following statements agree with the information given in Reading Passage 2?

In boxes 20 – 26 on your answer sheet write

YES if the statement agrees with the information

NO if the statement contradicts the information

NOT GIVEN if there is no information on this in the passage

20. Vehicle pollution is worse in European cities than anywhere else.
21. Transport by horse would be a useful alternative to motor vehicles.
22. Nowadays freight is not carried by water in the United Kingdom.
23. Most European cities were not designed for motor vehicles.
24. Technology alone cannot solve the problem of vehicle pollution.
25. People's choice of car and attitude to driving is a factor in the pollution problem.
26. Redesigning cities would be a short-term solution.

READING PASSAGE 3

You should spend about 20 minutes on Questions 27 – 40 which are based on Reading Passage 3 on the following pages.

Questions 27 – 33

Reading Passage 3 has eight paragraphs (A – H).

Choose the most suitable headings for paragraphs B – H from the list of headings below. Write the appropriate numbers (I – X) in boxes 27 – 33 on your answer sheet.

NB There are more headings than paragraphs, so you will not use all of them.

List of Headings

- I Common objections
- II Who's planning what
- III This type sells best in the shops
- IV The figures say it all
- V Early trials
- VI They can't get in without these
- VII How does it work?
- VIII Fighting fraud
- IX Systems to avoid
- X Accepting the inevitable

<i>Example</i>	<i>Answer</i>
Paragraph A	VI

- 27. Paragraph B
- 28. Paragraph C
- 29. Paragraph D
- 30. Paragraph E
- 31. Paragraph F
- 32. Paragraph G
- 33. Paragraph H

THE KEYLESS SOCIETY

- A** Students who want to enter the University of Montreal's Athletic Complex need more than just a conventional ID card – their identities must be authenticated by an electronic hand scanner. In some California housing estates, a key alone is insufficient to get someone in the door; his or her voiceprint must also be verified. And soon, customers at some Japanese banks will have to present their faces for scanning before they can enter the building and withdraw their money.
- B** All of these are applications of biometrics, a little-known but fast-growing technology that involves the use of physical or biological characteristics to identify individuals. In use for more than a decade at some high-security government institution in the United States and Canada, biometrics are now rapidly popping up in the everyday world. Already, more than 10,000 facilities, from prisons to day-care centres, monitor people's fingerprints or other physical parts to ensure that they are who they claim to be. Some 60 biometric companies around the world pulled in at least \$ 22 million last year and that grand total is expected to mushroom to at least \$ 50 million by 1999.
- C** Biometric security systems operate by storing a digitised record of some unique human feature. When an authorised user wishes to enter or use the facility, the system scans the person's corresponding characteristics and attempts to match them against those on record. Systems using fingerprints, hands, voices, irises, retinas and faces are already on the market. Others using typing patterns and even body odours are in various stages of development.
- D** Fingerprint scanners are currently the most widely deployed type of biometric application, thanks to their growing use over the last 20 years by law-enforcement agencies. Sixteen American states now use biometric fingerprint verification systems to check that people claiming welfare payments are genuine. In June, politicians in Toronto voted to do the same, with a pilot project beginning next year.
- E** To date, the most widely used commercial biometric system is the handkey, a type of hand scanner which reads the unique shape, size and irregularities of people's hands. Originally developed for nuclear power plants, the handkey received its big break when it was used to control access to the Olympic Village in Atlanta by more than 65,000 athletes, trainers and support staff. Now there are scores of other applications.

- F** Around the world, the market is growing rapidly. Malaysia, for example, is preparing to equip all of its airports with biometric face scanners to match passengers with luggage. And Japan's largest maker of cash dispensers is developing new machines that incorporate iris scanners. The first commercial biometric, a hand reader used by an American firm to monitor employee attendance, was introduced in 1974. But only in the past few years has the technology improved enough for the prices to drop sufficiently to make them commercially viable. 'When we started four years ago, I had to explain to everyone what a biometric is,' says one marketing expert. 'Now, there's much more awareness out there.'
- G** Not surprisingly, biometrics raise thorny questions about privacy and the potential for abuse. Some worry that governments and industry will be tempted to use the technology to monitor individual behaviour. 'If someone used your fingerprints to match your health-insurance records with a credit-card record showing you regularly bought lots of cigarettes and fatty foods,' says one policy analyst, 'you would see your insurance payments go through the roof.' In Toronto, critics of the welfare fingerprint plan complained that it would stigmatise recipients by forcing them to submit to a procedure widely identified with criminals.
- H** Nonetheless, support for biometrics is growing in Toronto as it is in many other communities. In an increasingly crowded and complicated world, biometrics may well be a technology whose time has come.

Questions 34 – 40

Look at the following groups of people (Questions 34 – 40) and the list of biometric systems (A – F) below.

Match the groups of people to the biometric system associated with them in Reading Passage 3. Write the appropriate letters A – F in boxes 34 – 40 on your answer sheet.

NB You may use any biometric system more than once.

34. sports students

35. Olympic athletes

36. airline passengers

37. welfare claimants

38. business employees

39. home owners

40. bank customers

List of Biometric Systems

- (A) fingerprint scanner
- (B) hand scanner
- (C) body odour
- (D) voiceprint
- (E) face scanner
- (F) typing pattern