

BUILDING A PATTERN OF CULTURE AND THOUGHT FOR WORKERS IN AN OIL COMPANY THROUGH AN ESP PROGRAM ON THE CHALLENGE AGAINST POLLUTION

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Abstract

The notion of pollution is closely connected to the industrial and technological progress in the Western world. Researchers have mentioned that hazards of pollution have endangered the earth's ecological balance, human life, and the earth's natural resources (air, water, and food). Aramco, an oil company operating in Saudi Arabia, has contributed to the environmental pollution in Saudi Arabia to a great extent. Saudi Arabia, being an oil producing country is been endangered by pollution, due to the activities of large numbers of factories and cars in the country. Therefore, Aramco has taken the responsibility for warring against pollution in different ways, including educating the employees through an ESP training program. This paper proposes that the company deemed it fit that its workers should be socialized using the American concept. This concept is with regards to the challenge against pollution in the company, country, and the world level as a whole. However, this was attained by building a pattern of culture and thought through an ESP training program known as VELT. The pattern has three steps: firstly, the awareness of the concept of pollution and Aramco's responsibility towards the control of environmental pollution. Secondly, extensive knowledge about pollution, causes, results, dangers, and management; and thirdly, what actions to be taken to fight it and safeguard children, the environment, and the country of Saudi Arabia from the dangers through positive behavior.

Keywords: Culture, ESP, vocational language training, environment pollution, socialization, Aramco

Introduction

This paper aims to tackle the notion of pollution as seen in the VELT (Vocational English Language Training) program which is a purely

communicative ESP program with a notional functional syllabus. It has four levels, A-D. Also, it has two components of material, common core and specialist material. This program was written by western writers for Saudi Aramco workers / trainees who were expected to work in seven job categories. The job categories include gas and oil operators, electricians, heavy equipment mechanics, instruments men and several more. The program aims at socializing the trainees into the industrial organization cultural ideology, bearing in mind that some of them had a low level of education. The paper proposes that by analyzing the common core material, we can see how the program shows how the notion of pollution has to be understood by the Aramco future company men, and what the company expects the workers to be committed to. This paper tries to investigate the knowledge and the behavior of the company men towards pollution. It is a serious notion whose late treatment in VELT level D is due to the trainees' need for rich linguistic and communicative competence. This is because, it has to be presented through longer passages and more complicated descriptions. It might also be due to other functional and linguistic priorities to be handled earlier through significant areas. Thus, such areas include safety and travel which are closer to the trainees' life.

Aramco (The Arabian American Oil Company) is an oil company working in producing oil in Saudi Arabia and marketing it internationally. One of its aims is to develop Saudi Arabia and the Saudis. It got its new name as Saudi Aramco; this was after the Saudi government bought the company in 1988.

Based on his analysis of parts of the common core component of the VELT program, Qattous (1995) stated that handling the concept of pollution within the context of achievement and planning reflects a challenge towards controlling pollution. However, stopping pollution will enable the children enjoy the environment and their life as a whole. This can be a starting point of the argument that the program handles pollution in order to build a pattern of culture and thought similar to the cultural pattern of its treatment in the West in their real fight against pollution. The pattern starts with spreading the awareness of the concept of pollution among people. This is done by educating them about pollution, its dangers, problems, sources, and the way to fight and stop it. Finally, appropriate plan actions are taken, where all the institutions and government agencies, including individuals, have to act to control pollution. But before we go to the pattern, we need to look into some significant points of view in the world about pollution.

Pollution: A Worldwide Worry

The environment has been a universal concern of all thinkers in all areas of specializations. Anthropologists and linguists think of the

environment as a context of human activity and language as well. Damen (1987) discussed the approach of forming value orientations which majorly depends on compiling a list of cultural values, beliefs, attitudes, and assumptions, including the relationship between man and the environment. She considered this "*an almost endless and quite unrewarding endeavor*" (Damen, 1987). She mentions that "*Kluckhohn and Strodtbeck suggested that values cluster around five universal human problems involving man's relationship with the environment*" (Damen, 1987).

Talking about man's relationship with the environment as natural, Damen (1987) describes the above writers' notion which is summed up in that "*in the man-to-nature continuum, variations range from a position of human mastery over nature, to harmony with nature, to subjugation to nature. Most industrialized societies represent the mastery orientation.*" (Damen, 1987)

Heiman (1994) looks at the American culture from a different perspective considering its environmental aspect. Heiman tried to relate the threat of the Western culture to the global ecology, and the acceptance or resentment of the Western culture reflection in EFL material. She talked about it in the former colonies, e.g. in the Middle East, and stated that:

"Although the people of these nations may increasingly desire the material benefits of trade with the Western world (after a motivation standing behind their study of English), they may not realize the ecological price they pay for the benefits" (Heiman, 1994)

She cited Nasr (1993) as evidence: "*When one looks at the Islamic world today, one sees blatant signs of the environment crisis in nearly every country from the air pollution of Cairo and Tehran to the erosion of the hills of Yemen, to the deforestation of many areas of Malaysia and Bangladesh*" (Heiman, 1994). However, this is one of the major references to the negative effects of the industrial and technological progress that has been transferred to the Islamic/Arab world.

Many thinkers have been worried about the problem of pollution that has become a worldwide problem which requires greater attention and solution. Hofstede (1991) calls for world steps towards fighting pollution caused by socio-economic development in the world.

"Coping with these problems needs worldwide research and political decision-making in areas in which both perceived national interests and cultural values are in conflict. Decisions about sacrifices made today for benefits to be reaped by the next generation have to be made" (Hofstede, 1991)

Researchers in the field of pollution and efforts to fight it wrote in every relevant aspect. Indians shared with the world in believing that Sulfur Dioxide is a main constituent of air pollution, and is produced during oil refining processes. Also, odors are emitted by many industries including oil refineries, which require following various pollution control methods (Prabhakar, 2001). The human health is affected by pollution in the workplace. Furthermore, Tandon and Kumar (1998) stressed the fact that *“The interaction between man and his working environment may lead to betterment of health when work is fully adapted to human needs and factors; or to ill health if work stresses are beyond human tolerance”*. (P. 8)

Referring to the sources of pollution, Giziakis and Bardi-Giziaki (2002) mentioned that ship accidents which cause environmental pollution are attributed to collisions, hull and machinery damage, and groundings. Fighting pollution can help organizations economically. Denton (1996) discussed the importance of the environment as it affects organizations in terms of cost, so *“pollution management is more than controlling cost; it can be a revenue generator”* (Denton, 1996). Gross (1986) describes how spending on pollution control around the world is budgeted to increase from \$70 billion in 1979 to \$115 billion in 1990. He *“expands on the theory that cleaning up - or preventing mistakes - in the environment makes a good sense financially and health wise”* (Gross, 1986). Grant (1994) mentioned that, following the trip reduction plan and low emission vehicles plan can reduce pollution in the Los Angeles basin to face the seriousness of California’s air quality problems.

Nentjes and Wiersma, (1988) (from the Netherlands) believed that *“environmental resources and human knowledge are the ultimate foundations on which human welfare is based”*. They also stressed that the use and extension of knowledge can reduce the amount of pollution and the costs of pollution control. Hence, some researchers critically consider the harm poised by environmental pollution. Deviprasad et al (2002:7) believe that *“Ozone is the most phytotoxic of the gaseous air pollutants”* and Pandey (2002:141) states that air pollution results into a reduction of forest productivity. The Greenpeace Movement is a reaction against the attack of the scientific and technological progress on the natural environment. It focuses its activities on encouraging and maintaining a peaceful unpolluted environment.

Scipioni et al (2001) talked about occupational health and safety in Italy and stressed the fact that organizational management should consider the maintenance of industrial health and safety standards in Europe. Meslmani (2004) monitored air pollutants in 15 locations in Damascus. Akeredolu & Sonibare (2004) reviewed the various flare systems to choose the less-polluted one when venting natural gas into the environment.

Huraira (2005) worked on a new extreme value model to identify significant problems of air pollution to determine the required reduction of the sources of air pollution in Malaysia. Shumlyanskyy et al (2005) were interested in the development of preventive measures against pollution. This was as a result of the presence of toxic elements in the soil and water around Muzhievo village in Ukraine as a result of the mining activities. Essoka et al (2006) analyzed soils in Nigeria where there were oil spills, and the threat oil has on agriculture and human health due to soil pollution.

Coates (2007) worked on a study of the experience of pollution in the Imperial and Baja California Valleys. The aim was to provide recommendations for deterrence of similar ecological degradation effects that could emerge. Ali (2008) investigated the pollution of odor and unpleasant taste of drinking water coming from the Suez Canal in Egypt. However, her field investigations showed great amounts of discharged wastes at several points to the canal. Ettouney et al (2009) investigated ozone pollution in Kuwait. Abdaullah et al (2009) investigated monitoring air quality management in the State of Texas, USA to solve the ozone problem in the Houston area.

Sonibare et al (2010) investigated air pollution around petroleum production facilities in Nigeria. Thus, they found out that at 60 meters away from the petroleum production facilities, are people with respiratory or heart disease. Therefore, old people and children should take precautionary measures against the inhalation of air pollutants. Jabbour et al (2010) highlighted the significance of environmental training in large organizations seeking to mitigate their environmental impacts. Kabashi et al (2011) investigated the technology and policy options for reducing greenhouse gas and air pollution through transportation in Kosovo. Rootzen et al (2011) studied the potential role for CO₂ capture technologies in lowering CO₂ emissions from European heavy industry to reduce air pollution.

Due to the fact that pollution is a worldwide worry, Aramco, as a world oil producer and shipper, was aware of its responsibility to fight it. Their aim is to make sure that its industrial environment is safe and healthy to human beings. So, it felt responsible for educating workers in the area on the prevention of pollution. *"As Saudi Aramco has grown, so has its emphasis on operational and environmental safety"*. (Clark, 1993:30)

The Western Industrial Origin of Pollution

To Americans, the environment can be adapted in order to become suitable to the Western life (Fogarty, 1994:395), which means man has to control it to meet the requirements of the Western lifestyle. Americans express the need and desire to control nature, and they plan for it for the benefit of the society. The Americans' attitude towards controlling nature is

emphasized by Barnouw (1973:67) quoting Kluckhohn who emphasized the focus of American orientations on mastery over nature. This concept which implies serving man aims at restoring natural environment to its unpolluted state in case of becoming polluted. Thus, this might require fighting for it.

The spread of new Western technological developments in the world has made the concept of environmental pollution to become a challenge. However, this was not the focus of the old societies because of the lack of technological products and modernized societies with the flourishing oil industry. This created a need for natural resources, such as oil, to produce or run the products that require high technology. Air and water pollution have become a challenge to the Western world and modern industrialized countries. For instance, Saudi Arabia suffering from pollution was a direct result of Western products, from mainly factories and cars as the major causes of pollution.

Americans is working hard on fighting air pollution at all levels and through the use of different programs. As a result, we may find plenty of American pollution prevention agencies and organizations monitoring the environment. Some of them are listed by Wigglesworth (1993:176-179) including: State Pollution Prevention Programs, National Roundtable of State Pollution Prevention Programs, Waste Reduction Resource Center for the Southeast, American Institute for Pollution Prevention, The Local Government Commission, EAP Risk Reduction Engineering Laboratory, and Pollution Prevention Research Branch.

Global cooperative effort is needed to fight this global threat to global ecology, and the earth's natural resources (air, water, and food).

In the United States, careful attention to personal interactions with the environment was encouraged. The world challenges pollution by encouraging everyone to fight against it, even at the individual level. Catlin (1993:163) thinks "*workers should be included as an integral part of pollution prevention programs*" and agrees with others who look at the "*worker involvement as an important feature of successful pollution prevention programs in industry*" because they have the necessary knowledge about the work process and they are affected by the negative or positive change in the environment. Not only that, but also "*worker attitudes and behavior are sometimes perceived as one of the obstacles to successful pollution prevention*". This is why workers' interest has to be aroused by encouraging them. Catlin stresses the fact that with pollution, "*the job becomes harder to accomplish, ...takes more time to finish, ...requires additional skills and training, and pay or job security is reduced*". Catlin relates pollution to occupational health and safety impacts as "*workers can have unhealthy exposures to pollutants in their jobs*". Ross and Konrad (1993) believed that "pollution prevention education" can ensure that

“educational programs targeting industries and household consumers contribute in describing applicable pollution prevention techniques and suggesting ways to implement pollution prevention activities”(p.4).

Aramco is encouraging and trying to involve workers in the fight against pollution, following the American strategy of putting pollution prevention first before fighting pollution, through arousing interest and awareness, equipping workers with extensive knowledge, and then preparing them to take action.

Damen (1987) presented a table that shows 'some implicit cultural assumptions' in the North American culture (USA) with a contrasting column that represents cultural assumptions of no specific cultures. Thus, she spoke about the 'Personal control of the environment' in North American and 'Nature dominating man' on the contrasting side. The need to fight and control pollution stems from the American notion of 'personal control of the environment' for the time being and for the future. Furthermore, she points out later, expressing the notion of the American challenge:

"Americans assume and thus value and believe in doing something about environmental problems. Nature can and should be changed" (Damen, 1987:196).

Although the issue of change meant here relates to the present situation, it can also be a counteract process against the change of the environment in a direction that hurts human health. However, the change required in the American culture needs to be in accordance with the well-being of human life.

The destruction of the environment caused by the Western progress imported into the other cultures was emphasized by Heiman (1994):

"In the long run, the shift in values towards the Western love of progress, places greater demands on the earth's limited natural resources and threatens to destroy the planet's ecological balance in favor of Western conveniences, comforts, and conceptions of the good life".(p.5)

Great effort has been made in the United States on plans to fight pollution, and making policies to tackle it. So, *“A federal pollution prevention agenda has emerged pertinent in terms of the opportunities it provides to state and local governments and the direction it sets for national pollution prevention policies”* (Ross & Konrad, 1993).

Americans in North Carolina think that the concept of pollution prevention *“must become part of all state and industrial environmental policy and actions. When government and industry begin to see opportunities to reduce pollution, we have finally arrived”* (Hunt, 1993:25).

Nevertheless, for Americans to prevent pollution is like a battle or a challenge. *“State pollution prevention programs must provide the*

atmosphere and mind set for this change. It is sometimes a frustrating and uphill battle, but the North Carolina experience has shown it can be done” (Hunt, 1993:25). This is why Aramco insists that Saudis, like Americans, can win the battle against pollution.

Benedict (1993) spoke of a committee that will supervise a voluntary pollution prevention program and says that major responsibility of the committee working with volunteers are to

“...build awareness of pollution prevention opportunities, define the specific steps to be taken, provide education and assistance, and recognize and reward achievements”. (pp. 147-148)

This is exactly what Aramco is doing: educating the trainees by creating the awareness in them, giving extensive details about pollution as an educational step, clarifying the steps they have to follow and providing assistance to them, and then showing them the reward if they succeed in their effort to take action: joy, happiness, cleanliness, and a healthy life and environment.

So now, let us go and see how this cultural pattern is reflected in the VELT material that reflects Aramco’s cultural thought about the challenge against pollution.

Pollution in VELT: A Western Pattern of Culture and Thought;

The modern technological society has witnessed man-made hazards which threaten man's safety and life, and the environment as well, and even man's food. This is why Aramco Saudi workers have to be socialized into "always being aware" of the hazards threatening the environment.

Pollution is significantly handled in the VELT program as it is significant in the company. It is part of the environmental influence in Aramco. At the same time, Aramco trainees are going to become, or even have already become part of the program. Therefore, they are going to be affected and they have to defend themselves through defending the company's environment. The company is trying to make an educated and active work-force that can be helpful in preventing pollution. VELT handles it as the very notion of pollution and as a Western notion that has been imported to Saudi Arabia with the Western technology used for producing oil and running vehicles.

The Saudi desert is vast, and this reduces the great danger of air pollution. But water pollution might become a greater hazard. Oil tankers and oil spills and leaks from ships may create a great problem to the sea life in the Gulf, and other seas in the world. The Gulf War showed the significance of keeping water safe from pollution which threatened the Saudis by killing a lot of fish and poisoning the drinking water taken from the Gulf through desalination plants.

The call of VELT to reduce the use of cars is one of the ways to control what Heiman (1994) calls "*...desires or perceived needs that jeopardize the earth's ecological balance*" (Heiman, 1994:5).

Spreading Awareness in VELT

Pollution is expressed in VELT very explicitly, spreading the awareness among the worker/trainees of the concept, most hazardous kinds, and sources of pollution in the industrialized Saudi context.

Firstly, VELT relates the environment to pollution, explaining the concept of pollution. "*When the environment becomes very dirty, we say it is polluted*" (D95-1.SB). The concept is related to something Saudis hate, dirtiness. Then, it moves to the sources of pollution.

"Water pollution is one kind of pollution. It is caused by industry, farms and sewage treatment plants. Oil and dangerous chemicals, if they get into water in large amounts, cause pollution. Animal wastes, fertilizers, and pesticides drain from farms into lakes, rivers and oceans" (D95-1.SB).

Air pollution is again as serious as water pollution. Thus, it is also closely related to the trainees' life:

"Another kind of pollution is air pollution. Air pollution is caused by smoke from factories, exhaust from cars, and bad smelling waste and garbage" (D95-1.SB).

Later in the Summary of the same lesson, VELT introduces the concept of 'environment', fearing that the trainees might not understand it, as most of them have a low level of education.

"Our environment is everything around us, for example, air, water, and land." (D95-2, SB)

Other terms were also explained in the Summary:

"...We say that air and water which are dirty are polluted. ...When there are unclean substances in the environment, we say there is pollution. ...Substances which cannot be used and are not needed are called waste" (D95-2)

This is an introductory lesson in which the VELT program presents about pollution. Aramco is an industrial company that produces oil. Oil operations produce a lot of wastes from plants, gas plants, oil plants, refineries, and housing camps. The company has a large concern as a modern Western company that wants to keep its image bright and nice in the eyes of the Saudi people as nationals in the local community and as workers who work to keep its operations going. The Saudi workers represent Aramco in the local community and can be helpful in maintaining the nice picture of Aramco in its geographical and cultural environments.

VELT introduces the relationship between the environment, pollution, and Aramco workers. The environment is where we live: Aramco workers and everybody else. The program reminds the trainees that because it is their environment, they have the responsibility to protect it. The notion of ownership is focused in the definition of the meaning of environment in the summary of lesson D95 to create this feeling of group and collective responsibility. The feeling of ownership is one of the strongest emotional bonds with things around us. However, Aramco, the air, the land, and the sea, all belong to the Saudis. The program does not want to say that they are only Saudis as Aramco is originally American, and there are many Americans and other foreigners living and working there.

In lesson D95-1, SB, VELT explains that 'pollution' implies 'dirty'. The causes of water pollution are identified for the trainees as part of their world and even life. The causes are the industry represented in the plants where they work, the farms from which they get their food, and sewage treatment plants which originally aim at maintaining a healthier environment. Nevertheless, this seems to change into another type of dirt that pollutes the environment. A serious cause is also oil and dangerous chemicals from plants and animal waste with fertilizers from farms because they contaminate rivers, lakes, and eventually oceans.

The program attributes air pollution, the second kind, to smoke from factories, exhaust from cars, and bad smells from garbage waste. It wants the new employees to be aware of what happens around them. The negative effect of using cars on the previously clean ecology of Saudi Arabia, causes air pollution, with the added bad effect of oil industry of the flames producing gases when burning extra gas to allow the easy production of oil. Thus, they produce a lot of smoke that goes up high in the sky and then becomes cold and heavy. It drops and sometimes becomes suffocating. The use of heavy trucks, cars and other vehicles, ships, tankers, and planes, has also contributed to air pollution problems in the environment.

The trainees are indirectly taught about the impact of an industrialized environment which is polluted, i.e. where they live. They also have to learn how they have to cope with this industrialized environment which is full of hazards. These hazards affect personal health as well as the social attitude towards industry.

The VELT program is preparing them to cope with pollution produced by the company as they are going to contribute to producing it in their different jobs whether they work in oil plants, gas plants, sewage treatment plants, or with chemicals or even on Aramco's vast farm in Hasa area. Therefore, VELT is addressing the problem at the personal level too.

Consequently, pollution is presented explicitly with causes and results in this material. Air pollution is referred mainly to smoke from cars and factories.

"Many things can lead to air pollution, for example, exhaust from cars or smoke from factories. Exhaust from cars is produced by burning gasoline" (D96-2, SB).

The car is the central basis for modernization and fast means of transportation in a modern world full of energy and the need to produce. The number of cars that runs in Saudi Arabia is increasing. The more a country develops, the more cars and factories it has, and therefore, the more pollution the modern country suffers from. The trainees have to know that cars are also available in the local community where Aramco is not closely involved even though Aramco employees have cars too. Gasoline and other oil products are used in cars and factories. Aramco as an oil company produces oil and oil products; therefore, they are responsible for pollution majorly, and they want the Saudis to share this responsibility with them.

Providing Extensive Knowledge

After giving the awareness aspect of the pollution issue, VELT moves to giving extensive knowledge about it as the details are more significant than just being aware of the problem. This issue is associated with cultural significance. The trainees need extra awareness and knowledge of the harmful results of pollution.

"Air pollution ... is dangerous to health. It can cause your eyes to hurt, and it can also lead to difficulty in breathing. Air pollution can also result in damage to crops." (D96- 2, SB)

A frightening picture is drawn for the trainees who are becoming Aramco's future company men. The aim is influencing their behavior. Cars are important for the wheel of the modern world, and factories are important for supporting the economy of modern countries even though they pollute the environment. However, pollution has to be feared and, therefore, reduced if they have to enjoy the fruits of modernization and civilization.

The damage of the crops can be taken at the economic level where crops represent the agricultural wealth as well as food. At the personal level, Saudis have to play their role by taking the challenge in reducing the threat of pollution

VELT reminds the trainees that water pollution is dominating the oceans and seas all over the world including the Saudi environment (D97-1, SB). This is why Aramco's concern about pollution is taken from the concerns of the world.

Dumping of waste materials into the oceans or rivers pollutes the water. The need for wider awareness of the problem makes VELT explained

that the oceans being very big does not necessarily mean that they cannot be polluted, as people may think.

"The more waste you dump, the more polluted the sea becomes" (D97-1, SB).

This is a call to change the behavior by not dumping waste materials into the oceans. This implies that the method of disposing chemicals by dumping them in the oceans should be stopped and changed. This is an attempt to create a new attitude towards life threats in the sea by activating people emotionally as well as economically. It is a worldwide problem. The trainees realizing that Saudi Arabia and Aramco are parts of the world, VELT is socializing them into world issues, not just Aramco and Western issues. However, the trainees have to realize something else as well.

Aramco is an industrial company. It is considered a Saudi company when it is actually run by Americans and using the American systems. However, the major point is that Aramco produces a main pollutant of the sea. And this is caused by ship accidents.

"Accidents can also cause oil pollution. If tankers are damaged, in a collision, for example, the oil that they carry may spill out into the sea." (D97-1, SB)

This is a warning that we should try to reduce collisions in the sea, and the cleaning of tankers at seas. A greater emphasis is put on finding a solution for cleaning tankers so that the oil is not discharged into the oceans:

"One of the main causes of pollution in the ocean is oil. Oil pollution from tanker spills is a serious problem, but the main pollutant is the oil which is disposed by cleaning the oil tanks" (D124-2, SB).

Oil spills are not only caused by ship accidents; they also occur due to inappropriate way of cleaning oil tanks. Extensive details are provided.

"When tanks in a tanker are being cleaned, some of the oil can get into the ocean. This is hazardous to all living things in the sea. Therefore, it is necessary to be very careful when cleaning the tanks so that the oil is not dumped into the ocean." (D124-2, SB)

Water pollution with oil is mainly caused when cleaning oil tankers and dumping some oil into the ocean. Oil can also pollute oceans when tanker collisions takes place, and oil is spilled out. Lessons D127-130 presented the notion of oil pollution in the oceans within the framework of tanker collisions. D127 related the notion to tanker accidents and negative results of oil spills.

"An oil spill is one cause of water pollution. Usually, the oil is spilled as a result of an accident. An oil spill has serious

results. It is dangerous for the fish and the birds in the area. Also, it will cover the beaches with oil." (D127-2, SB)

Lesson D128 shows pictures of a collision with an oil spill, and a picture that shows dead fish and oil-covered birds on the beach. The death of the fish signifies a threat on human life on food availability; and covering the birds and beaches with oil implies killing the beauty of nature, and not allowing people to enjoy swimming. The presentation of the problem extends to the details of the effect of water pollution.

Lesson D129 tells of bad results of oil spills, e.g.

“Oil spills have a lot of bad results. A major one is pollution. Oil spills pollute both the water and the land, and the fishing and tourist industries can lose a lot of money. Finally, people may die as a result of explosions or fires.” (D129-1&3, SB)

Fish die, the fishing industry is affected, people lose money, and might result into death. This extensive knowledge is preparing the trainees to do something about this menace.

Lesson D130 puts the trainees in world perspectives and talks about various oil spills in the history because of ship accidents that were caused by running aground or having collisions.

“There are many causes of oil spills. Sometimes, tankers run aground or have collisions. Collisions often cause explosions. Offshore wells sometimes have blowouts. The amount of oil spilled is not always the same. One of the largest spills was in 1967 when 30,000,000 gallons of oil polluted the coasts of England and France as the result of the “Torrey Canyon” running aground” (D130-2).

The trainees' awareness, knowledge and way of thinking about the world are expected to be influenced by the image drawn by VELT on the causes and results of water pollution. They have to realize that an industrial country will have to suffer from its industrial operations, including transporting oil. However, fighting pollution is everyone’s responsibility.

Taking Action: Fighting pollution is a responsibility

By bringing in this topic into the instructional materials, the program is bringing in the way of thinking of the Western world. The Western world sees the environment as something that people enjoy and therefore, has to be kept safe and healthy.

The Western industrial concerns came from the fact that the world is being destroyed by pollution. The company represents the way of thinking of the Western world as it is run by Western systems, whereas Saudis are not very concerned because they have not reached a stage where they have to

worry. Later, at the time of the Gulf war, things changed and the whole world, not only the Saudis, started to be concerned with problems caused by pollution in the Arabian Gulf. Thus, the need to protect themselves against pollution arises.

The American concept of 'personal control of the environment' in Damen (1987) clarifying the relationship between the humans and the environment is reflected in the VELT material in the lessons on pollution mentioned earlier.

The future is important to the present and future workers of Aramco, and the future men of Saudi Arabia. They are going to assume jobs that may control the rate of pollution in the area as workers in oil plants, gas plants, and other Aramco plants. Therefore, they have to be warned that:

"If we want our children to enjoy the sea and the fish from the sea, we must stop this pollution now. The longer we wait, the worse it will become." (D97- 1, SB)

A problem will definitely have an end. "We must stop this pollution now" refers to the people of the whole world, especially the people who can act and have an access to information to solve pollution. Saudis can contribute to the solution that will save the children of the world. Children are in focus because environmental pollution is becoming more and more dangerous, and at the time when children are ready for life, pollution will destroy their life experience as well as their environment.

The program handles the important notion of cause and effect which aims at developing a way of thinking in the Saudi workers that enables them to cope with living in an industrial company which is run by highly technological systems.

The Western logical thinking about a life-threatening issue like pollution involves the effect of pollution on fish, them dying and becoming poisonous and hazardous to people, the death of birds and the effect on their beauty, and the destruction of beautiful enjoyable beaches. Thus, all these will impose a strong impression on the trainees. This will increase their determination to help reduce pollution.

Logical discussion of the topic of water pollution, with concentration on the cause of oil spills may create some kind of fear in these new recruits. The fear has to be removed to give them the confidence that things can be controlled with the correct effort and methods of fighting pollution. The Eastern Province is located on the Arabian Gulf. The Gulf is essential for Saudis as it is the source of fish which is considered as the main meal for the Gulf people. Moreover, it is a passage out of the country for oil exports in addition to its being a major way that is used to get imports from outside the country. All Saudis realize the importance of the Gulf. Also, Riyadh, the capital, and part of Saudi Arabia, gets drinking water from the desalination

plants set up on the Gulf. This reflects the notion of pollution endangering the use of the sea economically for the Saudi life.

However, the question that these new recruits will ask is about taking action: ‘What are the methods for preventing water pollution?’ In other words, “What should we do? and “How can we act?” The program tries to answer the anticipated question by only stressing the need to prevent pollution because

"Water pollution reduces the amount of clean water which we have for things like drinking, cleaning, swimming, and fishing. Water pollution is brought about by dumping waste in the sea, and in rivers and lakes. ...Some waste materials in water can be removed naturally... We cannot allow pollution to become worse. We must prevent it, to protect the health of people. We should also protect the animals, birds, and fish that live in our environment. Therefore, it is necessary to find other ways to dispose of waste in order to protect the environment against pollution." (D99-2, SB)

Five pictures are provided with the passage about pollution in lesson D99. The pictures are an oil tanker, a farm, and a factory, as the causes of water pollution. The other two pictures represent the results of pollution. They include: three people, including a child drinking from a lake in the desert and the second picture shows a number of fish and a dead bird on the beach near the polluted water. The most significant picture is the one that has people in it. The people are Saudis, and one of them looks poisoned and in pain. Behind them, there is a warning sign on a palm tree saying "Warning, Polluted". It probably aims at impressing the trainees by showing them naive Saudis who probably did not see or could not read the warning sign, affected by the industrial development in their country. Saudis used to drink water from lakes in the desert oases, and bedouins still need to use lake water normally. Now, it seems that water will be dangerous to drink unless it comes through pipes. The picture of the bird and fish may be alarming as it relates pollution to sea-food. Therefore, people have to change attitude and behavior in the area of industry. Both plans should be developed for drainage from houses, offices, farms, factories and so on. They have to take action.

Oil spills need to be controlled in order to reduce water pollution and protect living things and the human health. Appropriate equipment needs to be used.

“Although some oil spills cannot be prevented, most of them can be prevented if proper equipment and procedures are used” (D129-1).

The presentation of the bad results of water pollution by oil spills ends by suggesting ways of preventing and fighting pollution.

“It is important to control oil spills because of the damage they cause. There are several ways to control spills. The first is to prevent spills from happening. Making sure that all equipment is working properly is one way to help prevent accidents. Another way to control spills is to report spills as soon as possible. The sooner a spill is reported, the sooner it can be cleaned up. This means there will be less damage from the spill. A third way is to keep the spill from becoming larger and to clean up the oil. It is important to restrict and remove the oil as soon as possible so that the damage will be as little as possible. The method for doing this depends on the location of the spill, the amount of oil spilled, and the weather conditions.” (D129-1, SB)

Taking precautions or acting fast can help prevent oil spill pollution. However, there are practical steps for controlling oil spills. Lesson 98-1, SB presents pictures showing a method of controlling oil spills. A container is put around the oil spill to prevent the oil from spreading, chemicals are put on oil, and then boards are pulled over the oil spill in order to break the oil into drops.(D98-1, SB).

There is an emphasis on air pollution coming from cars. The program provides some problem-solving actions, or logical life-related method, ending the challenge, as open direction is expressed.

"...Special equipment should be attached to cars to burn the exhaust better, and unleaded gasoline should be used. People should also make sure that their cars run correctly. Public transportation should be used so that there will be fewer cars on the road. Also, people should use carpools, or go to work with their friends, instead of driving their own cars" (D100-2, SB).

This short paragraph carries a message that directs the trainees towards what they have to do to reduce air pollution. Prevention is another key to controlling air pollution in the environment.

Air pollution can be reduced mainly through a civilized logical way of handling car technology. The exhaust should be modified using a special piece of equipment that helps burn the exhaust better; unleaded gasoline can reduce pollution in the exhaust; maintenance of the engine can help car engine work more properly; and using public transportation and carpools reduces the number of cars running on the road. The suggested reduction of the number of cars driven on the road corresponds to Grant's plan for reducing air pollution in Los Angeles basin by a trip reduction plan (Grant

1994). Saudis need to be serious, and think of how to reduce pollution. They are thousands of employees that logical thinking can direct them towards reducing pollution in the company's area, the Eastern Province specifically and Saudi Arabia in general.

Summary

It has been mentioned that pollution is originally a Western notion. It appeared and increased strongly with the spread of science and technology in the modern and modernized world countries. This is due to the industrial development, activities and products. We have also seen how Saudi Arabia, like other industrialized countries, has been affected by the industrial pollution, especially air and water pollution due to oil industry, factories, and the running of a large number of vehicles in the country. Aramco feels responsible to contribute to fighting pollution because of its share in polluting the environment. VELT is one of the attempts to socialize the Aramco Saudi employees into Western culture. However, the world, Saudi Arabia, and the company issues play a special significance in their life. VELT introduces the concept of the challenge against pollution within the context of building a Western pattern of culture and thought of three aspects: providing individuals with awareness of the notion of pollution and kinds of personal and health hazard; providing extensive knowledge of the details of the causes, results, and impact; and finally, encouraging them to take actions after learning what to do in order to reduce, prevent, or stop pollution to reduce the danger on the natural resources which are essential for human life (air, food, and water). Trainees have to be aware of the concept of pollution and its dangers, and contribute to the world campaign against it. They have to accept the challenge against pollution.

Conclusion

It can be concluded that

1. An ESP program can inject trainees with the Western challenge against pollution, as it can show them their close relationship with their environment.
2. The program succeeded in familiarizing the trainees with framework they can undergo to help prevent pollution at the individual level, as Westerners believe that individuals can take on this responsibility.
3. The program succeeded in providing the trainees with the challenge against pollution, representing a western pattern of culture and thought for challenging and preventing pollution consisting of three logical aspects. firstly, the necessary awareness of Aramco, its operations, and they as individuals using western products, like cars, produce air and water pollution; secondly, extensive knowledge

about the concept of pollution, its sources, hazards, and the different ways of fighting, reducing, and stopping it; and thirdly, how acting towards fighting, reducing, and preventing pollution can benefit them at the individual level, company level, Saudi level, and finally the world level.

4. An English program can convey a cultural concept.
5. An ESP program can put the trainees with a low level of education at the same level with school and university students who are also supposed to be aware of the hazards of environmental pollution.
6. An ESP program can prepare trainees to be able to perform well on the job that requires a new way of thinking in order to cope with a highly technological industrial environment.

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Key to Abbreviations:

VELT	Vocational English Language Training
ARAMCO	Arabian American Oil Company
ESP	English for Specific Purposes
SB	Student Book
SB-1 (e.g.)	Student Book, page 1
D	Level 'D'