UTM

UNIVERSITI TEKNOLOGI MALAYSIA

UHLB 2122 : ACADEMIC COMMUNICATION SKILLS

SECTION 33

ACADEMIC PAPER

TITLE: IS RECYCLING AND REPAIRING WORTH IT?

PREPARED BY: GROUP 4

LECTURER: MISS SHAZWANI BINTI ABD RAHMAN

NAME	MATRIC NUMBER
CHIAM WOOI CHIN	A19EC0034
GOH JO EY	A19EC0047
ONG YIN REN	A19EC0204
NG JING ER	A19EC0115

“According to the Environmental Protection Agency, it is estimated that 75 percent of the waste stream in the United States is recyclable, but just about 30 percent of the waste stream is recycled” (Saphore, 2012). The use of excessive single-use goods, plastic packaging, and general consumer products that are not intended for re-use or long-term use are very common in today's society (Herberz et al, 2020). The throwaway society emerged with the industrial revolution where both the production and waste products are showing a significantly increasing trend. Most of the people prefer this kind of single use and disposable products as these kinds of products deliver benefits such as convenience and cost savings. According to Clean Water Action, the spread of throwaway society brings various pollution that causes disastrous damage to the ecosystem and environment. Various initiatives have been introduced to manage the waste but have not been taken seriously by the people. However, different perspectives of benefits such as environmental benefits, economical benefits, and social benefits can be gained if we successfully integrate the principle into our daily lives. Recycling and repairing can reduce pollution to the environment, conserving energy and costs as well as creating jobs. The waste produced has led to a throwaway society which brings the various pollution that causes disastrous damage to the ecosystem and environment. The 3R principle is the solution to get rid of a throwaway society. (Clean Water Action, n.d.). Moreover, repairing and recycling help to conserve natural resources, thus reduce environmental impacts and contribute to sustainable living. On the other hand, some may argue that recycling is a time-consuming task that costs more resources.

The practice of recycling and repairing is a good solution that prevents throwaway society. This is because this practice conserves natural resources and extends the lifetime of objects. However, people nowadays prefer to dispose of things instead of repairing or recycling them. The reason is due to the fact that they feel that it is much more convenient to just simply throw them away. Besides, with the rise of single-use products being produced, people tend to develop into a throwaway society since everything is disposable and causing the natural resources limitation (Chen et al., 2021). The culture of throwaway society and dependence on single use products led to an increase in environmental problems. Therefore, it is important to practice the measures of recycling and repairing as these measures help to reduce the amount of waste generated (Bovea et al., 2020) in order to conserve natural resources. The

National Institute of Health (NIH) mentioned the benefits of recycling in conserving non-renewable materials to the environment which highlighted that the implementation of active paper recycling successfully reduced the wood harvestation to 20% by 2010. The recycling of paper is the process that turns the waste paper into new paper products, which is considered as a beneficial solution that will help to reduce waste produced and conserve natural resources such as wood. Another benefit listed in NIH is that recycling conserves energy (''Benefits of Recycling'', n.d.), repairing products will help extend the lifespan of a product while still conserving renewable resources by reducing the need for replacement. According to the case study of Bovea et al. (2020), he highlighted that repair and reuse items are typically environmentally better instead of replacing them based on the investigation results on analyzed appliances classification for the breakdown in the first 3 years. Through repairing we can extend the lifetime of the objects and minimize the culture of disposing of items. Samiha (2013) also discussed the importance of recycling and reuse practices which help in conserving natural resources for posterity. One of the examples given is reducing the use of packing is able to minimize the amount of trash generated and lessen the use of natural resources. Therefore, people are encouraged to practice recycling and repairing items instead of throwing or disposing of them away, as though these practices we are able to extend the object lifetime which simultaneously contributes to the effort of conserving natural resources that is important for the succeeding generation.

Turning trash into treasure can aid in the reduction of environmental contaminants as well as the preservation of our planet's ecology. The ways to transform waste into treasure include recycling and repairing. Recycling can help to offset greenhouse gas emissions as it requires less processing to turn waste into usable products (Asmatulu et al, 2011). The extraction of raw resources into usable products compared to making products from virgin materials will consume less energy and produce fewer volumes of greenhouse gases (AlDabbagh, 2021). Greenhouse gases, such as carbon dioxide, will contribute to climate change by trapping heat in the atmosphere and polluting the air. Thus, recycling aids in the reduction of greenhouse gas emissions and air pollution. We need to start mending and recycling right now to make a difference in the globe. These acts have the potential to transform waste into usable stuff that we did not expect. For example, we can recycle the cereal

box into a file holder and turn the old shirts into a doormat. “Small actions may have a large impact. If we make recycling a habit, we will influence everyone around us to do the same. In the long run, repairing and recycling can reduce the volume of trash and plastic in the oceans as well as the damage it does to animals and the atmosphere. On the other hand, the non-recyclable items will be sent to landfill sites most of the time. By practicing repairing broken artifacts into more valuable items and recycling, these actions can aid in the reduction of waste that results in landfills. Landfills trigger plenty of problems and it is bad for the environment. One of the consequences of landfills is the emission of methane into the atmosphere when biodegradable agricultural waste decomposes (Vanapalli et al., 2019). When rain falls on waste sites, organic and inorganic materials dissolve and produce leachate that contaminates the groundwater. It illustrates how landfills pollute water. People should think twice before tossing away anything. Sometimes, we can repurpose and restore the artifacts in our homes, turning garbage into treasure. As a consequence, the reduction of the garbage can reduce the carbon footprint as well as help the climate. Trash reduction efforts should not be overlooked because they have major environmental implications. According to the study "Challenges and methods for effective plastic waste management during and after the COVID-19 pandemic", the delay of the recycling program due to Covid-19 has led to the littering of PPE kits which posing a new impact on marine creatures (Vanapali, 2021). In a nutshell, people should reduce trash by recycling and repairing items to avoid harming our planet.

With people eating and using more, the amount of rubbish generated from the packaging of various commodities is becoming exceedingly harmful for our environment. In the meanwhile, it has filled up our environment with so many plastic bags and rubbish that we cannot fully dispose of it. Consequently, this is how human habitat has created a throwaway society. Nevertheless, recycling and repairing are a smart approach to avoid a throwaway society that leads by the waste produced. It is because this principle helps us toward sustainable living. Making people think about the impact of their consumption and production of waste can help to encourage us to reduce the waste we create and reduce the impact on the environment. As well as all items are going to be reduced or recycled and reused, it will help to save our natural resources indirectly. (Lino and Ismail, 2015). It is because it will decrease the amount of landfill as the amount of the waste product has been in applying the 3R principle.

By this, we reduce the cost of landfills and incineration and save our landfill space involuntarily. (Lino and Ismail, 2015)Besides, by decreasing the needs of the landfill, it helps to increase job opportunities. It is because recycling and reuse create at least 9 times more jobs than landfills and incinerators, and as many as 30 times more jobs. Not only that, as the recycling industry continues to develop, more people will be needed to collect, sort, and process recyclables. With that, reuse centers can be leveraged to generate new work possibilities. (Samiha, B. 2013). Furthermore, by applying the 3R principle, it can prevent pollution and save energy. Recycling conserves energy by lowering or eliminating the need to create new materials (Harmony, 2021). By applying recycled materials instead of new natural resources, manufacturers can produce the same items with less energy and expenditure. As recycled materials have already been purified and processed, manufacturing is substantially less energy-intensive the second time around. Without any hesitation, it reduces water pollution and water consumption. Besides, when reducing the needs of the landfill, it will also produce a healthy environment. It is because the deposition of organic waste in landfill generates biogas which is essentially a mix of carbon dioxide (CO_2) and methane (CH_4). (Lino, Ismail, 2015). Since recycling and repairing bring lots of benefits to maintain a good sustainable living , it should be a start by stopping throwaway habits in our daily life. It is not too late to apply this behavior as it not only helps in sustainable life but also to our mother earth.

Repairing is one of the good practices to reduce waste pollution and the spreading of the throwaway society. However, some of the people have their opinion that repairing has required a high cost of repairs. They might think that repairing needs a lot of cost and time while replacing just needs to buy a new one. This situation causes most of the people to rarely or even never practice the repairing culture but this opinion is misleading. Although replacing items brings convenience to them, repairing items also brings benefits in economic aspects. Gharfalkar et al. (2021) stated that a repair can be a chance to alternate manufacture and maintenance services. Repairing has the potential to stimulate employment in the repair service sector. This showed that repairing is not just money-consuming and a waste of time, it also has the potential to bring the evaluation of repairing service in economic aspects. In addition, the reuse centers also have job opportunities for people troubled with jobs or suffering from long-term unemployment. (Samiha, 2013). In the repairing service sector, people need

access to tools, technologies, skills and knowledge that enables them to repair or reuse objects (Meißner, 2021). This can help to increase the job opportunities where people can integrate the repair service work into various aspects of their business model such as technical, transport, packaging, loader, sales, and other job fields. The benefits of replacing items are just for the convenience of people but not for the conservation of the environment and improving the economics of society. Therefore, the opinion of most people is inaccurate and arguable. In fact, repairing and reusing aids in the decreasing of the throwaway culture by conserving natural resources, reducing waste pollution and providing economic benefits to citizens. Hence, we should care about the environment and society and not just think about ourselves.

Furthermore, one of the challenges to recycling and repairing practice is the amount of time it takes. The operation of waste recycling systems, particularly home recycling systems, is dependent on the more or less voluntary effort of customers or end-users (Johansson, 2016). People may argue that such actions are unprofitable and that they are preoccupied with their jobs (Langley, 2012). Other than that, the public perception of recycling programs and efforts is also influenced by recycling facilities and other infrastructural services. For instance, people were distracted when they had to clean reusable trash, collect recyclable rubbish, and travel to a recycling location that was placed a significant distance away to finish a recycling process. Thus, many people are hesitant to spend part of their spare time recycling. On the other hand, the recycling and repairing process can be simpler if it becomes a human daily basis. The practice of recycling can be started at home. The individual should set a goal for the recycling practice and setting up a recycling spot in their house. Setting targets to monitor the recycling process might encourage people to be more aware before generating waste and to think carefully before purchasing products. Drop-off recycling services or door-to-door recycling pickup services are now available as an alternative to traveling to a recycling center (Tiew et al., 2014). In addition, individuals must first understand why they should recycle before they can make it a habit. They should be aware of the consequences of the throwaway society as well as the repercussions of landfills. For instance, incineration will release heavy metals and harmful compounds into the environment, while landfills will emit methane gas when the decomposition of garbage (Asmatulu, 2011). Recycling and repairing can reduce air pollution and landfill issues, such as minimizing landfill costs and conserving landfill

space (Samiha, 2013). In short, the time required for the recycling process is far less than the time required to cope with the consequences of a throwaway culture. Recycling should always be the responsibility of everyone, and there should be no reason to deny it. People should develop the habit of recycling and repairing from now on.

In conclusion, the waste produced by humans has led to a throwaway society which brings the various pollution that causes disastrous damage to the ecosystem and environment. Recycling and repairing items is the solution that aids in the abolition of the throwaway culture. Both of these solutions can extend the lifetime of the item thus may decrease most of the unnecessary waste. Moreover, repairing and recycling help to conserve natural resources, thus reduce environmental impacts and contribute to sustainable living. On the other hand, some may argue that recycling is a time-consuming task that costs more resources. However, the benefits of recycling and repairing products outweigh the disadvantages. It is not difficult to find out in today's society, there are more and more people applying repairing and recycling in their daily lives. Due to the increase of natural disasters in recent years, most people are starting to be concerned about environmental protection and waste minimization though they rarely or never practice recycling and repairing before. If we do not practice repairing and the 3R principle in our daily life, there will be an increasing impact on the environment. This will also cause the overflow of landfills which create unpleasant smells and end up being toxic from all the harmful chemicals which arise from Styrofoam, batteries, microwaves, cleaning supplies, and other household products. Therefore, is repairing and 3R principle practice can help reduce waste pollution although it is a waste of time?

References

Al-Dabbagh, R. (2021). Waste management strategy and development in Ajman, UAE. Renewable Energy and Environmental Sustainability, 6, 14. https://doi.org/10.1051/rees/2021005

Asmatulu, R., & Asmatulu, E. (2011). Importance of recycling education: a curriculum development at WSU. Journal of Material Cycles and Waste Management, 13(2), 131–138. https://doi.org/10.1007/s10163-011-0002-4

Bovea, M. D., Ibáñez-Forés, V., & Pérez-Belis, V. (2020). Repair vs. replacement:Selection of the best end-of-life scenario for small household electric and electronic equipment based on life cycle assessment. *Journal of Environmental Management*, *254*, 109679. https://doi.org/10.1016/j.jenvman.2019.109679

Chen, Y., Awasthi, A. K., Wei, F., Tan, Q., & Li, J. (2021). Single-use plastics: Production, usage, disposal, and adverse impacts. *Science of The Total Environment*, *752*, *141772*. https://doi.org/10.1016/j.scitotenv.2020.141772

Clean Water Action (n.d.). The Problem - Our Throwaway Lifestyle. https://www.cleanwateraction.org/features/problem-our-throwaway-lifestyle

Harmony Enterprise Inc. (2016, July 21). *How Recycling Saves Energy*. Harmony. https://harmony1.com/recycling-saves-energy/

Herberz, T., Barlow, C. Y., & Finkbeiner, M. (2020). Sustainability Assessment of a Single-Use Plastics Ban. Sustainability, 12(9), 3746. https://doi.org/10.3390/su12093746

Johansson, K. (2016). Understanding recycling behavior: a study of motivational factors behind waste recycling. Waste Management and The Environment VIII. https://doi.org/10.2495/wm160361

Langley, J. (2012). Is Green a Grey Area? Sustainability and Inclusivity: Recycling and the Ageing Population. The Design Journal, 15(1), 33–56. https://doi.org/10.2752/175630612x13192035508507

Lino, Ismail. (2015). Municipal Solid Waste as Sustainable Energy Source for Brazil. International Journal of Energy and Power Engineering. http://doi.org/10.11648/j.ijepe.20150404.12

Meißner, M. (2021). Repair is care? - Dimensions of care within collaborative practices in repair cafes. *Journal of Cleaner Production, 299*, 126913, https://doi.org/10.1016/j.jclepro.2021.126913.

National Institutes of Health (n.d.). Benefits of Recycling. https://nems.nih.gov/environmental-programs/Pages/Benefits-of-Recycling.aspxv

Rogers, H. A., Deutz, P., & Ramos, T. B. (2021). Repairing the circular economy: Public perception and participant profile of the repair economy in Hull, UK. *Resources, Conservation and Recycling*, *168*, 105447. https://doi.org/10.1016/j.resconrec.2021.105447

Samiha, B. (2013). The Importance of the 3R Principle of Municipal Solid Waste Management for Achieving Sustainable Development. *Mediterranean Journal of Social Sciences*, *4*(3), 129. http://dx.doi.org/10.5901/mjss.2013.v4n3p129

Saphores, J.-D. M., Ogunseitan, O. A., & Shapiro, A. A. (2012). Willingness to engage in a pro-environmental behavior: An analysis of e-waste recycling based on a national survey of U.S.

households. Resources, Conservation and Recycling, 60, 49–63. https://doi.org/10.1016/j.resconrec.2011.12.003

Tiew, K.-G., Ahmad Basri, N. E., Watanabe, K., Abushammala, M.F., & Bin Ibrahim, M. T. (2014). Assessment of the sustainability level of community waste recycling program in Malaysia. Journal of MaterialCycles and Waste Management, 17(3), 598–605.https://doi.org/10.1007/s10163-014-0273-7

U.S. Department of Health and Human Services. (n.d.). *Benefits of Recycling*. National Institutes of Health. https://nems.nih.gov/environmental-programs/Pages/Benefits-of-Recycling.aspx

Vanapalli, K. R., Samal, B., Dubey, B. K., & Bhattacharya, J. (2019). Emissions and Environmental Burdens Associated With Plastic Solid Waste Management. Plastics to Energy, 313–342. https://doi.org/10.1016/b978-0-12-813140-4.00012-1

Vanapalli, K. R., Sharma, H. B., Ranjan, V. P., Samal, B., Bhattacharya, J., Dubey, B. K., & Goel, S. (2021). Challenges and strategies for effective plastic waste management during and post COVID-19 pandemic. Science of The Total Environment, 750, 141514. https://doi.org/10.1016/j.scitotenv.2020.1415

Appendix

ACADEMIC PAPER G4

by JING ER NG

Submission date: 10-Jun-2021 02:45PM (UTC+0800)

Submission ID: 1603244672

File name: UHLB_-_G4_ACADEMIC_PAPER_2.pdf (390.02K)

Word count: 3111

Character count: 16954

UHLB **2122** : ACADEMIC COMMUNICATION

SKILLS SECTION *33*

ACADEMIC PAPER

TITLE: IS RECYCLING AND REPAIRING WORTH IT?

PREPARED BY: GROUP 4

LECTURER: MISS SHAZWANI BINTI ABD RAHMAN

NAME	MATRIC NUMBER
CHIAM WOOI CHIN	A19EC0034
GOH JO EY	A19EC0047
ONG YIN REN	A19EC0204
NG JING ER	A19EC0115

“According to the Environmental Protection Agency, it is estimated that 75 percent of the waste stream in the United States is recyclable, but just about 30 percent of the waste stream is recycled" (Saphore, 2012). The use of excessive single-use goods, plastic packaging, and general consumer products that are not intended for re-use or long-term use are very common in today's society (Herberz et al, 2020). The throwaway society emerged with the industrial revolution where both the production and waste products are showing a significantly increasing trend. Most of the people prefer this kind of single use and disposable products as these kinds of products deliver benefits such as convenience and cost savings. According to Clean Water Action, the spread of throwaway society brings various pollution that causes disastrous damage to the ecosystem and environment. Various initiatives have been introduced to manage the waste but have not been taken seriously by the people. However, different perspectives of benefits such as environmental benefits, economical benefits, and social benefits can be gained if we successfully integrate the principle into our daily lives. Recycling and repairing can reduce pollution to the environment, conserving energy and costs as well as creating jobs. The waste produced has led to a throwaway society which brings the various pollution that causes disastrous damage to the ecosystem and environment. The 3R principle is the solution to get rid of a throwaway society. (Clean Water Action, n.d.). Moreover, repairing and recycling help to conserve natural resources, thus reduce environmental impacts and contribute to sustainable living. On the other hand, some may argue that recycling is a time-consuming task that costs more resources.

The practice of recycling and repairing is a good solution that prevents throwaway society. This is because this practice conserves natural resources and extends the lifetime of objects. However, people nowadays prefer to dispose of things instead of repairing or recycling them. The reason is due to the fact that they feel that it is much more convenient to just simply throw them away. Besides, with the rise of single-use products being produced, people tend to develop into a throwaway society since everything is disposable and causing the natural resources limitation (Chen et al., 2021). The culture of throwaway society and dependence on single use products led to an increase in environmental problems. Therefore, it is important to practice the measures of recycling and repairing as these measures help to reduce the amount of waste generated (Bovea et al., 2020) in order to

conserve natural resources. The National Institute of Health (NIH) mentioned the benefits of recycling in conserving non-renewable materials to the environment which highlighted that the implementation of active paper recycling successfully reduced the wood harvestation to 20% by 2010. The recycling of paper is the process that turns the waste paper into new paper products, which is considered as a beneficial solution that will help to reduce waste produced and conserve natural resources such as wood. Another benefit listed in NIH is that recycling conserves energy ("Benefits of Recycling", n.d.), repairing products will help extend the lifespan of a product while still conserving renewable resources by reducing the need for replacement. According to the case study of Bovea et al. (2020), he highlighted that repair and reuse items are typically environmentally better instead of replacing them based on the investigation results on analyzed appliances classification for the breakdown in the first 3 years. Through repairing we can extend the lifetime of the objects and minimize the culture of disposing of items. Samiha (2013) also discussed the importance of recycling and reuse practices which help in conserving natural resources for posterity. One of the examples given is reducing the use of packing is able to minimize the amount of trash generated and lessen the use of natural resources. Therefore, people are encouraged to practice recycling and repairing items instead of throwing or disposing of them away, as though these practices we are able to extend the object lifetime which simultaneously contributes to the effort of conserving natural resources that is important for the succeeding generation.

Turning trash into treasure can aid in the reduction of environmental contaminants as well as the preservation of our planet's ecology. The ways to transform waste into treasure include recycling and repairing. Recycling can help to offset greenhouse gas emissions as it requires less processing to turn waste into usable products (Asmatulu et al, 2011). The extraction of raw resources into usable products compared to making products from virgin materials will consume less energy and produce fewer volumes of greenhouse gases (AlDabbagh, 2021). Greenhouse gases, such as carbon dioxide, will contribute to climate change by trapping heat in the atmosphere and polluting the air. Thus, recycling aids in the reduction of greenhouse gas emissions and air pollution. We need to start mending and recyding right now to make a difference in the globe. These acts have the

potential to transform waste into usable stuff that we did not expect. For example, we can recycle the cereal box into a file holder and turn the old shirts into a doormat. “Small actions may have a large impact. If we make recycling a habit, we will influence everyone around us to do the same. In the long run, repairing and recycling can reduce the volume of trash and plastic in the oceans as well as the damage it does to animals and the atmosphere. On the other hand, the non-recyclable items will be sent to landfill sites most of the time. By practicing repairing broken artifacts into more valuable items and recycling, these actions can aid in the reduction of waste that results in landfills. Landfills trigger plenty of problems and it is bad for the environment. One of the consequences of landfills is the emission of methane into the atmosphere when biodegradable agricultural waste decomposes (Vanapalli et al., 2019). When rain falls on waste sites, organic and inorganic materials dissolve and produce leachate that contaminates the groundwater. It illustrates how landfills pollute water. People should think twice before tossing away anything. Sometimes, we can repurpose and restore the artifacts in our homes, turning garbage into treasure. As a consequence, the reduction of the garbage can reduce the carbon footprint as well as help the climate. Trash reduction efforts should not be overlooked because they have major environmental implications. According to the study "Challenges and methods for effective plastic waste management during and after the COVID-19 pandemic", the delay of the recycling program due to Covid-19 has led to the littering of PPE kits which posing a new impact on marine creatures (Vanapali, 2021). In a nutshell, people should reduce trash by recycling and repairing items to avoid harming our planet.

With people eating and using more, the amount of rubbish generated from the packaging of various commodities is becoming exceedingly harmful for our environment. In the meanwhile, it has filled up our environment with so many plastic bags and rubbish that we cannot fully dispose of it. Consequently, this is how human habitat has created a throwaway society. Nevertheless, recycling and repairing are a smart approach to avoid a throwaway society that leads by the waste produced. It is because this principle helps us toward sustainable living. Making people think about the impact of their consumption and production of waste can help to encourage us to reduce the waste we create and reduce the impact on the environment. As well as all items are going to be reduced or recycled and reused, it will help to save our natural

resources indirectly. (Lino and Ismail, 2015). It is because it will decrease the amount of landfill as the amount of the waste product has been in applying the 3R principle. By this, we reduce the cost of landfills and incineration and save our landfill space involuntarily. (Lino and Ismail, 2015)Besides, by decreasing the needs of the landfill, it helps to increase job opportunities. It is because recycling and reuse create at least 9 times more jobs than landfills and incinerators, and as many as 30 times more jobs. Not only that, as the recycling industry continues to develop, more people will be needed to collect, sort, and process recyclables. With that, reuse centers can be leveraged to generate new work possibilities. (Samiha, B. 2013). Furthermore, by applying the 3R principle, it can prevent pollution and save energy. Recycling conserves energy by lowering or eliminating the need to create new materials (Harmony, 2021). By applying recycled materials instead of new natural resources, manufacturers can produce the same items with less energy and expenditure. As recycled materials have already been purified and processed, manufacturing is substantially less energy-intensive the second time around. Without any hesitation, it reduces water pollution and water consumption. Besides, when reducing the needs of the landfill, it will also produce a healthy environment. It is because the deposition of organic waste in landfill generates biogas which is essentially a mix of carbon dioxide (CO2) and methane (CH4). (Lino, Ismail, 2015). Since recycling and repairing bring lots of benefits to maintain a good sustainable living , it should be a start by stopping throwaway habits in our daily life. It is not too late to apply this behavior as it not only helps in sustainable life but also to our mother earth.

Repairing is one of the good practices to reduce waste pollution and the spreading of the throwaway society. However, some of the people have their opinion that repairing has required a high cost of repairs. They might think that repairing needs a lot of cost and time while replacing just needs to buy a new one. This situation causes most of the people to rarely or even never practice the repairing culture but this opinion is misleading. Although replacing items brings convenience to them, repairing items also brings benefits in economic aspects. Gharfalkar et al. (2021) stated that a repair can be a chance to alternate manufacture and maintenance services. Repairing has the potential to stimulate employment in the repair service sector. This showed that repairing is not just money-consuming and a waste of time, it also has the potential to bring the evaluation of repairing service in

economic aspects. In addition, the reuse centers also have job opportunities for people troubled with jobs or suffering from long-term unemployment. (Samiha, 2013). In the repairing service sector, people need access to tools, technologies, skills and knowledge that enables them to repair or reuse objects (Meißner, 2021). This can help to increase the job opportunities where people can integrate the repair service work into various aspects of their business model such as technical, transport, packaging, loader, sales, and other job fields. The benefits of replacing items are just for the convenience of people but not for the conservation of the environment and improving the economics of society. Therefore, the opinion of most people is inaccurate and arguable. In fact, repairing and reusing aids in the decreasing of the throwaway culture by conserving natural resources, reducing waste pollution and providing economic benefits to citizens. Hence, we should care about the environment and society and not just think about ourselves.

Furthermore, one of the challenges to recycling and repairing practice is the amount of time it takes. The operation of waste recycling systems, particularly home recycling systems, is dependent on the more or less voluntary effort of customers or end-users (Johansson, 2016). People may argue that such actions are unprofitable and that they are preoccupied with their jobs (Langley, 2012). Other than that, the public perception of recycling programs and efforts is also influenced by recycling facilities and other infrastructural services. For instance, people were distracted when they had to clean reusable trash, collect recyclable rubbish, and travel to a recycling location that was placed a significant distance away to finish a recycling process. Thus, many people are hesitant to spend part of their spare time recycling. On the other hand, the recycling and repairing process can be simpler if it becomes a human daily basis. The practice of recycling can be started at home. The individual should set a goal for the recycling practice and setting up a recycling spot in their house. Setting targets to monitor the recycling process might encourage people to be more aware before generating waste and to think carefully before purchasing products. Drop-off recycling services or door-to-door recycling pickup services are now available as an alternative to traveling to a recycling center (Tiew et al., 2014). In addition, individuals must first understand why they should recycle before they can make it a habit. They should be aware of the consequences of the throwaway society as well as the repercussions of landfills. For instance, incineration will

release heavy metals and harmful compounds into the environment, while landfills will emit methane gas when the decomposition of garbage (Asmatulu, 2011). Recycling and repairing can reduce air pollution and landfill issues, such as minimizing landfill costs and conserving landfill space (Samiha, 2013). In short, the time required for the recycling process is far less than the time required to cope with the consequences of a throwaway culture. Recycling should always be the responsibility of everyone, and there should be no reason to deny it. People should develop the habit of recycling and repairing from now on.

In conclusion, the waste produced by humans has led to a throwaway society which brings the various pollution that causes disastrous damage to the ecosystem and environment. Recycling and repairing items is the solution that aids in the abolition of the throwaway culture. Both of these solutions can extend the lifetime of the item thus may decrease most of the unnecessary waste. Moreover, repairing and recycling help to conserve natural resources, thus reduce environmental impacts and contribute to sustainable living. On the other hand, some may argue that recycling is a time-consuming task that costs more resources. However, the benefits of recycling and repairing products outweigh the disadvantages. It is not difficult to find out in today's society, there are more and more people applying repairing and recycling in their daily lives. Due to the increase of natural disasters in recent years, most people are starting to be concerned about environmental protection and waste minimization though they rarely or never practice recycling and repairing before. If we do not practice repairing and the 3R principle in our daily life, there will be an increasing impact on the environment. This will also cause the overflow of landfills which create unpleasant smells and end up being toxic from all the harmful chemicals which arise from Styrofoam, batteries, microwaves, cleaning supplies, and other household products. Therefore, is repairing and 3R principle practice can help reduce waste pollution although it is a waste of time?

References

Al-Dabbagh, R. (2021). Waste management strategy and development in Ajman, UAE. Renewable Energy and Environmental Sustainability, 6, 14. https://doi.org/10.1051/rees/2021005

Asmatulu, R., & Asmatulu, E. (2011). Importance of recycling education: a curriculum development at WSU. Journal of Material Cycles and Waste Management, 13(2), 131—138. https://doi.org/10.1007/s10163-011-0002-4

Bovea, M. D., Ibâñez-Fores, V., & Perez-Belis, V. (2020). Repair vs. replacement:Selection of the best end-of-life scenario for small household electric and electronic equipment based on life cycle assessment. *Journal of Environmental Management, 254,* 109679. https://doi.org/10.1016/j. envman.2019.109679

Chen, Y., Awasthi, A. K., Wei, F., Tan, Q., & Li, J. (2021). Single-use plastics: Production, usage, disposal, and adverse impacts. *Science* of *The Total Environment, 752, 141772.* https://aoi.org/10.1016/i.scitotenv.2020.141772

Clean Water Action (n.d.). The Problem - Our Throwaway Lifestyle. https'//www cleanwateract›on oro/features/problem-our-throwawav-lifestvle

Harmony Enterprise Inc. (2016, July 21). How *Recycling* Saves *Energy.* Harmony. httos://ha rmonv1.com/recvclina-saves-enersv/

Herberz, T., Barlow, C. Y., & Finkbeiner, M. (2020). Sustainability Assessment of a Single-Use Plastics Ban. Sustainability, 12(9), 3746. https://doi.org/10.3390/su12093746

Johansson, K. (2016). Understanding recycling behavior: a study of motivational factors behind waste recycling. Waste Management and The Environment VIII. httDS://doi.ora/10.2495/wm160361

Langley, J. (2012). Is Green a Grey Area? Sustainability and Inclusivity: Recycling and the Ageing Population. The Design Journal, 15(1), 33-56. httos://doi.ora/10.2752/175630612x13192035508507

Lino, Ismail. (2015). Municipal Solid Waste as Sustainable Energy Source for Brazil. International Journal of Energy and Power Engineering. httD://doi.ora/ 10.11648/i. iieoe.20150404.12

Mei0ner, M. (2021). Repair is care? - Dimensions of care within collaborative practices in repair cafes. *Journal of Cleaner Production,* 299, 126913, https://doi.org/10.1016/i. clepro.2021.126913.

National Institutes of Health (n.d.). Benefits of Recycling. httos://ne ms.n h.sov/environmen tal- programs/Pages/Benefits of Recycli no.asox V

Rogers, H. A., Deutz, P., & Ramos, T. B. (2021). Repairing the circular economy: Public perception and participant profile of the repair economy in Hull, UK. *Resources, Conservation and Recyc/log, 168,* 105447. httDs://do i.org/10 .1016/J·ʳesconrec.2021 .105447

Samiha, B. (2013). The Importance of the 3R Principle of Municipal Solid Waste Management for Achieving Sustainable Development. *Mediterranean Journal* of Socia/ *Sciences,* 4(3), 129. httD://dx.do .ors/10.5901/miss.2013.v4n3D129

Saphores, J.-D. M., Ogunseitan, O. A., & Shapiro, A. A. (2012). Willingness to engage in a pro-environmental behavior: An analysis of e-waste recycling based on a national survey of U.S. households. Resources, Conservation and Recycling, 60, 49-63. https://do›.org/10.1016/.resconrec.2011.12.003

Tiew, K.-G., Ahmad Basri, N. E., Watanabe, K., Abushammala, M.F., & Bin Ibrahim, M. T. (2014). Assessment of the sustainability level of community waste recycling program in Malaysia. Journal of MaterialCycles and Waste Management, 17(3), 598-605. https://doi.org/10.1007/s10163-014-0273-7

U.S. Department of Health and Human Services. (n.d.). *Benefits of Recyc/log.* National Institutes of Health. httDS'//ne ms n h aov/environmental- Droorams/Paaes/Benefits-of-RecvcI!no asDx

Vanapalli, K. R., Samal, B., Dubey, B. K., & Bhattacharya, J. (2019). Emissions and Environmental Burdens Associated With Plastic Solid Waste Management. Plastics to Energy, 313-342. httos://doi.ora/10.1016/b978-0-12-813140-4.00012-1

Vanapalli, K. R., Sharma, H. B., Ranjan, V. P., Samal, B., Bhattacharya, J., Dubey, B. K., & Goel, S. (2021). Challenges and strategies for effective plastic waste management during and post COVID-19 pandemic. Science of The Total Environment, 750, 141514. https://aoi.org/10.1016/j.scitotenv.2020.1415

ACADEMIC PAPER G4

ORIGINALITY REPORT

7%	6%	3%	6%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	gulfnews.com Internet Source	2%
2	studylib.net Internet Source	2%
3	Submitted to University of North Texas Student Paper	1%
4	www.metalmenrecycling.com.au Internet Source	1%
5	www.colorado.edu Internet Source	1%
6	mafiadoc.com Internet Source	1%
7	Magdalena Meißner. "Repair is care? - Dimensions of care within collaborative practices in Repair Cafes", Journal of Cleaner Production, 2021 Publication	1%

Exclude quotes	On	Exclude matches	< 1%
Exclude bibliography	On		

Editing Checklist

	Details	Ticks (✔)
1.	Does the introduction paragraph provide a clear indication of the purpose of the text and a broad outline of the content? In other words, are your stance and thesis statement clear?	✔
2.	Does every part of the text contribute to the key idea in order to form a meaningful whole?	✔
3.	Does the stance remain clear throughout the text?	✔
4.	Is every sentence relevant to the purpose of the text?	✔
5.	Is there a sentence (preferably the first) in each paragraph that summarizes the key point of that paragraph?	✔
6.	Are the paragraphs unified, i.e. do they contain only one single idea each?	✔
7.	Has every idea been given sufficient weighting?	✔
8.	Does the text flow logically from one paragraph to the next?	✔
9.	Have transitional words or phrases (such as, for example, 'however', 'thus', 'therefore', 'as a result', 'in this way', 'furthermore', 'above all' and 'moreover') been used, but not overused, to help the reader to make connections between the ideas?	✔
10.	Are the sentence structure and vocabulary varied, without too much repetition?	✔
11.	Has avoided irrelevant and unnecessary 'filler' words such as 'actually' or 'basically'?	✔
12.	Has evidence been given to back up statements?	✔
13.	Is a positive and professional tone maintained throughout?	✔
14.	Is the tone appropriate for the reader?	✔
15.	Does the text meet the readers' needs?	✔
16.	Does the last paragraph neatly and concisely summarize and conclude?	✔

Proofreading Checklist

Details	Ticks (✔)
1. Suitable title with argumentative tone	✔
2. Include citations and references according to APA style	✔
3. All citations are accounted for in the references list	✔
4. Correct fonts/font sizes	✔
5. Suitable tenses	✔
6. Correct use of numbers and symbols	✔
7. Consistent use of abbreviations	✔
8. Correct use of punctuation	✔
9. Correct spelling	✔
10. Correct grammar	✔