

**PEER LEARNING: AN ENHANCEMENT PROJECT FOR AS
LEVEL STUDENTS IN AN INTERNATIONAL SCHOOL IN
JAKARTA**

JACQUELINE A/P ADWARD

OPEN UNIVERSITY MALAYSIA

2022

**PEER LEARNING: AN ENHANCEMENT PROJECT FOR AS LEVEL
STUDENTS IN AN INTERNATIONAL SCHOOL IN JAKARTA**

JACQUELINE A/P ADWARD

A School Leadership Improvement Project submitted in partial fulfilment of the
requirements for the degree of Master of Education

**Faculty of Education and Social Sciences
Open University Malaysia**

2022

DECLARATION

Name : Jacqueline a/p Adward

Matric Number : CGS01982606

I hereby declare that this Master's Project is the result of my own work, except for the quotations and summaries which have been duly acknowledged.

Signature:

A handwritten signature in black ink, appearing to read 'Jacqueline a/p Adward', written in a cursive style.

Date: 31 March 2022

**PEER LEARNING: AN ENHANCEMENT PROJECT FOR AS LEVEL STUDENTS
IN AN INTERNATIONAL SCHOOL IN JAKARTA**

JACQUELINE ADWARD

ABSTRACT

The purpose of this study was to evaluate the effectiveness of the curriculum enhancement project, Peer Learning, in the effort to improve the academic performance of AS Level students studying Global Perspectives & Research in an international school in Jakarta. The quantitative methodology was used to conduct the study on 25 respondents that were selected using purposive sampling. Data was collected using a questionnaire and the analysis of tests before and after the implementation of the Peer Learning enhancement project. The results indicated that the AS Level students studying Global Perspectives & Research found that the enhancement project is impactful and beneficial in improving their learning of Global Perspectives & Research and it is significantly related to their improved academic performance in Global Perspectives & Research. Implications for students and other stakeholders and recommendations for future studies are discussed.

Keywords: Peer Learning, Global Perspectives & Research, AS Level students, academic performance

ACKNOWLEDGEMENT

Words could not describe how much gratitude I have for the people whom have helped me in one way or other to complete this project.

I thank you, Associate Professor Dr Gurcharan, for your patience, guidance and time.

I thank you, my friend, Stephanie Cross, for believing in me more than I did in myself.

And, last but not least, I thank my Appa, Amma and Sen for being the source of inspiration, for being my pillars of strength, for being my main cheerleaders, for being my best friends. I am eternally grateful and I hope I've made you proud.

Appa,

This is for you.

Jacqueline Adward

TABLE OF CONTENT

TITLE PAGE	ii
DECLARATION	iii
ABSTRACT	iv
ACKNOWLEDGEMENTS	v
TABLE OF CONTENTS	vi
LIST OF TABLES	viii
LIST OF FIGURES	ix

CHAPTER 1	INTRODUCTION	
	1.1 Background to the Project	1
	1.2 Background to the Institution	3
	1.3 Problem Statement	5
	1.4 Objectives of the Project	10
	1.5 Research Questions	11
	1.6 Significance of the Project	11
	1.7 Definition of Terms	13
CHAPTER 2	REVIEW OF LITERATURE	
	2.1 Theoretical Framework	16
	2.2 Previous Studies	29
	2.3 Conceptual Framework	34
	2.4 Methodological Issues	35
	2.5 Conclusion	35
CHAPTER 3	METHODOLOGY & IMPLEMENTATION	
	3.1 Analysis of the current situation	36
	3.2 Strategic Planning	43
	3.3 Research Design	52
	3.4 Implementation of the Project	53
	3.5 Populations and Sample	54
	3.6 Instrumentations	56
	3.7 Procedures	57

CHAPTER 4	DATA ANALYSIS AND RESULTS	
	4.1 Demographic profile and Respondents	60
	4.2 Research Question 1	62
	4.3 Research Question 2	69
	4.4 Research Question 3	76
	4.5 Analysis of Pre-Test and Post-Test	85
	4.6 Conclusion	89
CHAPTER 5	DISCUSSION AND CONCLUSION	
	5.1 Major Findings	90
	5.1.1 Research Question 1	90
	5.1.2 Research Question 2	91
	5.1.3 Research Question 3	92
	5.2 Discussion	92
	5.3 Implication	96
	5.4 Reflection	97
	5.5 Recommendation and Future Studies	
	5.5.1 Recommendation	101
	5.5.2 Future Studies	103
	5.6 Conclusion	104
REFERENCES		106
APPENDICES		
A	Student Enrolment in 2021	110
B	The Organization Structure of BBSKJS	111
C	Questionnaire Administered to Students Before the Implementation of the Enhancement Project	112
D	Questionnaire Administered to Students After the Implementation of the Enhancement Project	115
E	Term Test – September 2021	118
F	Term Test – December 2021	123

LIST OF TABLES

Table 1.1	Infrastructures of BBSKJS	5
Table 3.1	An Analysis of Students' View about their Academic Performance in Global Perspectives & Research	39
Table 3.2	Analysis of AS Global Perspectives & Research Test Result for September 2021	41
Table 3.3	SWOT Analysis	44
Table 3.4	TOWS Matrix	45
Table 3.5	List of Generated Strategies	46
Table 3.6	Scores and its Interpretation for Strategy Determination	47
Table 3.7	Ranking Metrics	47
Table 3.8	Strategic Plan	48
Table 3.9	Tactical Plan	50
Table 3.10	Operational Plan	51
Table 3.11	Gantt chart of the Peer Learning Project	54
Table 3.12	Outline of Global Perspectives & Research lessons	58
Table 4.1	Demographic Characteristics of Respondents (N=25)	61
Table 4.2	Percentage and Frequency of Section B of Student Questionnaire Before the Peer Learning Enhancement Project (N=25)	62
Table 4.3	Percentage and Frequency of Section B of Student Questionnaire After the Peer Learning Enhancement Project (N=25)	70
Table 4.4	Comparing Results of Frequency and Percentage of Questionnaire Section B between September 2021 and December 2021	77
Table 4.5	Analysis of AS Global Perspectives & Research Test Result Before and After the Implementation of the Peer Learning Enhancement Project	85
Table A.1	Student Enrolment in BBSKJS in 2021	110

LIST OF FIGURES

Figure 2.1	Peer Learning ‘Horseshoe Shape’ Classroom Layout	23
Figure 2.2	Conceptual Framework Design	35
Figure 3.1	Fishbone Diagram	36
Figure 4.1	Students’ Responses Before and After the Implementation of the Peer Learning Project	79
Figure 4.2	Grade Rankings in Global Perspectives & Research Before and After the Peer Learning Enhancement Project	88
Figure 4.3	Test Average Score Before and After the Implementation of the Peer Learning Enhancement Project.	89
Figure A.1	The Organizational Structure of BBSKJS	111

CHAPTER 1

INTRODUCTION

1.1 Background to the Project

The education field is ever evolving. Throughout the decades, teaching policies with enhanced focus in students' academic success have been debated upon. Constant planning, analysing and evaluating on what best equip students in their schooling life and thereafter are vigorously done. As a result, teachers are regularly trained so that effective teaching and learning can happen in the classrooms.

One of the essential education components that have gone through a paradigm shift is in lesson deliverance. In the past, teachers played absolute autonomous roles in the classrooms. According to Lathan (2021) teachers were the agents that presented and passed information and knowledge to the students. Students were passive learners who always had their focus on their teachers. However, they had limited chances to practice communication, collaboration and critical thinking. Therefore, the paradigm shift in education especially focused in steering away from producing passive learners and demanded innovation, creativity and active involvement in the teaching and learning processes. The diversion to a more student-centred approach in teaching and learning birthed an improved kind of students. Bayram-Jacobs and Hayirsever (2016) stated that when students can communicate with one another and play an active role in their own education, they are more engaged in learning. Students collaborate with peers in the

classroom, communicate their thought processes, think critically, assess and evaluate ideas from team members before arriving to a desired shared outcome. Using student centred approaches in classrooms provide students with the avenue to be more independent in their learning and steer away from the need to be constantly spoon fed by the teachers. Besides that, because students are actively involved in learning through student centred approach, they become more immersed and continue to stay engaged in learning throughout the lesson period.

One such student centred approach that largely encourages students' active involvement while being autonomous of their education journey and experiences is Peer Learning. The importance of all participating students' experiences is emphasized in peer learning. Peer learning is the process of gaining information and skills by actively assisting and supporting others while learning themselves (Gogus, 2012). Students feel more at ease working with their peers and interact, think, and explore ideas more fully than they would in a teacher-led atmosphere (Edith Cowan University, 2016).

There are countless studies that have successfully proven the effectiveness of peer learning. Indeed, implementing peer learning has given much positive feedback involving increased students' engagement. Improving engagement in learning is deduced to be one step closer to producing better grades. Therefore, this project aims to improve AS Level students' academic performance (grades) in Global Perspectives & Research through peer learning.

1.2 Background to the Institution

1.2.1 Background of the School

This project is carried out in an international school in Jakarta Barat, Jakarta, Indonesia. For the purpose of this project, the international school where this project is carried is to be known as BBSKJS. BBSKJS is situated in the sub-district of Kebon Jeruk. The school's building comprises just one long block but with seven storeys. The school is close to several shopping complexes such as Taman Anggrek Mall, Central Park Mall, several residential areas such as Mediterrania Garden Residences and Puri Park View.

At the time this project was being carried out, there were 30 teachers, 12 male teachers and 18 female teachers. Besides that, at the time of the study, there were a total of 280 students enrolled in the school. The demographic trend among the students is skewed toward the Chinese population. There were 219 Chinese students as compared to 61 students from other races. The Chinese students make up to 78% of total student population in BBSKJS. The student enrolment data in 2021 is presented on Appendix A.

1.2.2 School Vision and Mission

Vision

To be a school that nurtures leaders who strive to be the best that they can be through lifelong learning, rooted in our culture, grounded in the Word of God.

Mission

To enable students to realise a clear sense of self-worth, inculcate discipline, instill open mindedness, integrity, tenacity and courage throughout their learning journey.

1.2.3 School Motto

School motto: Always striving to be our best!

1.2.4 School Philosophy & Values

- Compassion – I am here for you.
- Dedication – I will persevere until I reach my goals.
- Inspiring – I will encourage others to achieve greater heights
- Integrity – I am true to myself and other at all times.
- Teamwork – I will work well with my team to reach our goal.
- Passion – I am enthusiastic to explore and develop my interests

1.2.5 Organizational Structure

BBSKJS had 30 teachers and two administration assistants. Aside from the Principal and the Vice Principal, the remaining teachers including the Heads of Departments (HOD) play active roles in teaching. The school is also assisted by two administrative assistants. The organizational structure of the school is presented on Appendix B.

1.2.6 Infrastructures of the School

Table 1.1

Infrastructures of BBSKJS

No	Infrastructure	Quantity
1	Staffroom of the Teachers' - Shared by the Administrative Assistants	1
2	Classrooms - Equipped with Apple TV, Televisions, LCD Projectors and Desktop Computers	15
3	Cafeteria	1
4	All Purpose Hall - Equipped with Sound System, Apple TV, LCD Projectors and Desktop Computers	2
5	Elective Rooms	13
6	Computer Laboratories	3
7	Library	1
8	Science Laboratories	3

1.3 Problem Statement

Aligning with some core values of BBSKJS such as ‘inspiring’ and ‘teamwork’, it is an undeniable fact that peer learning is given much importance in the school. The founders and directors of the school often remind the teachers to instil peer learning in day to day teaching and learning processes. Peer learning techniques have been touted as a way to encourage components of lifelong learning abilities that are difficult to pursue through other means. The development of learning goals are linked to being cooperative, having teamwork, and being a fellow in a learning community; applying critical thinking and reflection; using communication skills; as well as learning to learn are some of the abilities or traits connected with peer learning (Boud et al., 1999).

Mustafa (2017) found that peer learning breathes fresh life into the learning process since students are more engaged and optimistic, and teachers serve as facilitators rather than knowledge sources. It also gives students knowledge that will help them in their future jobs. It is integral that students are given the opportunity to experience peer learning because the 21st century workforce heavily focuses on teamwork, cooperation and critical thinking among others. In that case, proper implementation and execution of peer learning in classrooms will absolutely make way to countless benefits for the students in the school.

Firstly, the fact that the foundation of thinking is attention must be established. Even if students seem to be paying attention in a traditional classroom setting with the teacher being the knowledge provider, it is important to know that students have gotten accustomed to the learning stimulant over many years of being in the system. They eventually will begin to ignore the teacher in the classroom, rendering the learning environment and process useless (Cicekci & Sadik, 2019). In other words, even if all other variables are favourable, learning does not occur when students are unable to focus on the teacher in the classroom or when their attention is diverted to unrelated stimuli. Cicekci and Sadik (2019) further added that older students may have more control over their focus on the teacher and their attention span can lengthen. They can become more aware of what / who to concentrate on during the teaching and learning process, but there is no solid proof of how long one can focus their attention.

Secondly, every educational institution in the world has curriculum targets. In the beginning of each academic year, teachers diligently map the curriculum that needs

to be covered in the said year. Using the curriculum mapping, teachers then draw up their scheme of work. Curriculum mapping is done with the intention to keep track of school assessments and examinations. Teachers often find themselves chasing syllabus because some unforeseen circumstances could have slowed them down. This results in teachers not being able to cover all the scopes that are going to be questioned in assessments or examinations. To be able to manage or avoid circumstances such as this, teachers prefer to continue playing the role of knowledge providers.

Teachers do not consciously reject the implementation of peer learning in the classrooms. As stated in the findings of a research done by Garrett (2008) in a suburban elementary school, teachers' do absolutely have the objective to employ student-centred teaching methodologies, but they are also aware of how much time it requires. Teachers do not have the luxury of time to do as they please because they have to finish the syllabus in the stipulated time. Students, too, have to progress to the next levels of syllabus content along with their peers in the years to come.

Thirdly, the assessment of learning has not seen many changes in the education system. It is true that teaching methodologies and learning strategies have gone through paradigm shifts, but the assessment and major examinations remain the same – pen and paper. Implementation of peer learning absolutely brings forward many benefits, but if students are only for the thrill of getting together with peers and not actually be on the task assigned, it affects the entire momentum of the learning process. The dynamics of peer learning will fail if the peers do not put the effort to benefit from this learning strategy. According to Thompson (2018) student conduct may affect a student's capacity

to study as well as the learning atmosphere for all the other students; hence it plays an important part in the academic progress. Peer learning involves reciprocal activities whereby constructive dialogues are exchanged to further improve oneself and the other. If students become disruptive by not staying on the task assigned, there is a tendency for teachers to lose confidence in continuing the implementation of peer learning in the classrooms.

Similar to the problem discussed above, students tend to resist peer learning activities if it is not made compulsory. Students do not willingly find themselves in a peer learning environment if there is no assessment marks to be derived from the peer learning activities. For example, if a student has the option not to participate in a peer learning activity, the student will not participate because neither the number grades nor the letter grades of the subject are affected. According to Struyven et al., (2008) performance consequences [grades] have an impact on students' course experiences, regardless of whether or not they like or detest the instructional practices. In another research done by Concannon et al., (2005), it is said that students' perceptions of the instruction were impacted by the teachers' compensation structure. A conscious and genuine effort of wanting to assist and learn from another person does not come naturally because everyone is so engrossed in their own learning. Today's modern industrial society is very competitive. Therefore, students would rather experience learning by themselves and look for ways to improve themselves. Although this sounds admirable because students are reflecting and self-evaluating, it robs them from being equipped with the most in demand 21st century skills such as collaboration, communication, critical thinking and problem solving. Also, due to the vastly available

information on almost anything on the World Wide Web, students employ the thought that everything is on the Internet, therefore, there is no need to work with their peers.

From the observation that was done in the Global Perspectives & Research class, it is seen that many students deviate their attention from the class and so making the process of teaching and learning challenging. The teacher, at the front of the class, did not receive active participation from the students. When Mr Mohan, the Vice Principal was interviewed (personal communication, January 2022) to obtain his views on implementing student-centred approach in teaching and learning, the researcher learnt that teachers teach the way they were taught which is the teacher-centred approach and therefore implementing student-centred approach is seen as troublesome. Teachers emulate their own teachers and that is most likely the problem because students don't learn the same way like students in the past. Teachers feel that they can control the learning that takes place in the class and in the students' minds if they keep being the knowledge providers. Since tests are largely based on what is in the syllabus, teachers think they must be in control and make sure that the syllabus is well covered as targeted.

He also added that teachers do not want to pass on the responsibility to students to learn from each other because they are afraid that students will get distracted or take too long to finish. Besides that, students, too, could regard peer learning opportunities as fun-time. However, he strongly believes that there is room for improvements and successful implementation of student-centred approach can take place so that teaching and learning can be done more effectively and bring about positive impact on the students' academic performance.

From another interview with a group of students studying the subject (personal communication, January 2022), it is found that they are not very keen with the teaching method that is used in the class. Students are exposed to multiple lecture series that they find it difficult to stay focused in the class and therefore resulting in their poor participation in the lessons. Moreover, they believe that they aren't learning much even when they do heavy listening in the classrooms. This results in their loss of interest and ultimately poor scores in the tests.

Thus, a project needs to be implemented so that improvements in the academic performance of the AS Level students in Global Perspectives & Research can be seen. The goal of the project is to improve AS Level students' test scores and implement peer learning in AS Level Global Perspectives & Research learning processes.

1.4 Objectives of the Project

This project aims to improve the academic performance of the Advanced Subsidiary (AS) Level students studying Global Perspectives & Research in an international school in Jakarta. Thus, the research objectives are stated as follows:

1. To identify the level of AS Level students' academic performance in Global Perspectives & Research before the enhancement project in an international school in Jakarta.
2. To identify the level of AS Level students' academic performance in Global Perspectives & Research after the enhancement project in an international school in Jakarta.

3. To compare the level of AS Level students' academic performance in Global Perspectives & Research in an international school in Jakarta before and after the enhancement project.

1.5 Research Question

This study aims to improve the academic performance of the AS Level students studying Global Perspectives & Research in an international school in Jakarta. Thus, the following research questions were formulated:

1. What is the level of the AS Level students' learning performance in Global Perspectives & Research before the enhancement project in an international school in Jakarta?
2. What is the level of the AS Level students' learning performance in Global Perspectives & Research after the enhancement project in an international school in Jakarta?
3. What is the level of the AS Level students' learning performance in Global Perspectives & Research in an international school in Jakarta before and after the enhancement project?

1.6 Significance of the Project

Through the implementation of this project, the result is expected to provide a working idea on the impact of AS Level students' improvement in the academic performance of Global Perspectives & Research. The findings of the research can be widely used by the teachers of Global Perspectives & Research to support and offer

guidance in accurately implementing peer learning strategies in the classroom with the ultimate aim to improve the students' test scores. Using this strategy is also aimed at raising awareness on the importance of collaboration, communication and critical thinking skills among others so that students' experience holistic learning through this versatile subject, Global Perspectives & Research. The planning and successful implementation of peer learning strategy into the teaching and learning of Global Perspectives & Research should take into account the motive of the strategy, the target group, the facilities and resources available for training purposes and the challenges that could be encountered.

Ideally, through the successful implementation of peer learning in the classroom of Global Perspectives & Research of AS Level students, students will be more driven and motivated to fully participate and engage themselves in the subject. Furthermore, students will be able to change their perception on this subject from a challenging subject to a doable and to a large extent, a logical subject. Experiencing a shift in mind set about how the subject is perceived will greatly help students to be more willing to discover the subject in depth and eventually increase their test scores.

Besides that, the result of the study could assist the teachers of Global Perspectives & Research in designing effective strategies with the aim to enrich students' learning experience and improve their test scores. It is an undeniable fact that to learn effectively, teaching too has to be effective. Since this is part of the curriculum, teachers teaching other subjects across AS Level as well as other levels such as IGCSE could be encouraged to carry out peer learning in their classrooms with the aim to improve learning effectiveness and overall academic performance. The result of the

study would also truly echo some of the values of the schools which are based on ‘inspiring’ and ‘teamwork’.

Therefore, this project ultimately will help in shaping students’ experience in the learning of Global Perspective & Research to be aligned with the needs of the AS Level examinations.

1.7 Definition of Terms

1.7.1 Peer Learning

Peer learning is a learning strategy that comprises a range of activities. One of the traditional methods Peer Learning was used is through a tutor-tutee model in which students whom have progressed to higher levels in their educational journey would tutor students who are in lower levels of their educational journey (Boud, 2001).

For the purpose of this project, Peer Learning is not replicating the tutor-tutee model but rather a more innovative and effective strategy which would involve students in the same level to come together to assist each other in the learning of the set curriculum in Global Perspectives & Research. It is a reciprocal learning process that demands communication and collaboration amongst the students (Gogus, 2012). Communication and collaboration skills are vital in the study of Global Perspectives & Research.

1.7.2 Enhancement Project

An enhancement project is a project which new capabilities are added to an existing system. Namely, it is an action plan that is put together to step up, to grow and further improve the current situation. This study is focused in improving the academic performance of the students. In this study, the enhancement project is focused on the Global Perspectives & Research subject in BBSKJS, an international school in Jakarta. Thus, the enhancement project in the study refers to a Global Perspectives & Research project with the intention to improve the academic performance of AS Level students in the said subject.

1.7.3 AS Level

Advanced Subsidiary (AS) Level is a pre-university program that is studied in one year. AS Level is a Cambridge Board of Examination qualification that is typically offered to students whom have completed their secondary qualifications.

1.7.4 Global Perspectives & Research

Global Perspectives & Research at the AS Level is an elective three component subject. The first component course is a written examination that requires students to analyse strengths and weaknesses of the two documents given to them. The students are required to argue their claims confidently. The second component is a 2000-word research report assessing any global issue of their interest. This component expects a thesis-antithesis-synthesis written style. The final component of AS Level Global Perspectives & Research is a team project. In this component, students will form a

group of four to five to research on a local problem with global relevance and suggest solution through a number of thematic angles. For the purpose of this project, only component one, which is the written component, is assessed.

1.7.5 International School

In Jakarta, there are schools run by the government and schools that are privately owned and operated. Private schools in Jakarta have the liberty to adopt the curriculum that they would like to offer to the students. It could range from the local national curriculum, Cambridge International Examinations to International Baccalaureate. BBSKJS is a privately owned school that is funded by school fees. It offers the Cambridge International Examination curriculum thus making it an International School. The medium of instruction in this school is English. All core subjects are taught in English as well as most elective subjects. The teaching of Indonesian language (Bahasa Indonesia) and Mandarin happens in the respective languages. In this study, the international school is an international type school located in Jakarta, Indonesia.

REFERENCES

- A. Arokiasamy, A.R., Kanesan, A.G., & Ahmad, M.Z., & Aziah, I. (2016). *Transformational Leadership of School Principals and Organizational Health of Primary School Teachers in Malaysia*. *Procedia - Social and Behavioral Sciences*. 229. 151-157. 10.1016/j.sbspro.2016.07.124.
- Akhtar, I. (2016). (PDF) Research design. https://www.researchgate.net/publication/308915548_Research_Design
- Bayram-Jacobs, D & Hayirsever, F. (2016). *Student-centred Learning: How Does It Work in Practice?*. *British Journal of Education, Society & Behavioural Science*. 18. 10.9734/BJESBS/2016/28810.
- Boud, D. (2001). *Making the Move to Peer Learning*. *Peer Learning in Higher Education: Learning from and with Each Other*. 1-17.
- Boud, D., Cohen, R., & Sampson, J. (1999). *Peer Learning and Assessment*. *Assessment & Evaluation in Higher Education*. 24. 413-426. 10.1080/0260293990240405.
- Boud, D., & Lee, A. (2005). *'Peer learning' as pedagogic discourse for research education*. *Studies in Higher Education*, 30(5), 501-516.
- Boud, D., Cohen, R., & Sampson, J. (Ed.) (2001). *Peer learning in higher education: learning from and with each other*. London: Kogan Page Ltd
- Burke, Alison. (2011). *Group work: How to use groups effectively*. *The Journal of Effective Teaching*, 11(2), 87-95.
- Carmeli, A., Sheaffer, Z., Binyamin, G., Reiter-Palmon, R., & Shimoni, T. (2014). *Transformational Leadership and Creative Problem-Solving: The Mediating Role of Psychological Safety and Reflexivity*. *The Journal of Creative Behavior*. 48. 10.1002/jocb.43.
- Carvalho, A. R., & Santos, C. (2021). *The transformative role of peer learning projects in 21st century schools—Achievements from five Portuguese educational institutions*. *Education Sciences*, 11, 196. <https://doi.org/10.3390/educsci11050196>
- Center for Teaching and Learning, Washington University. (2021). *Using roles in group work*. <https://ctl.wustl.edu/resources/using-roles-in-group-work/>
- Centre for Teaching Excellence, University of Waterloo. (2019). *Group roles: Maximizing group performance*. <https://uwaterloo.ca/centre-for-teaching-excellence/teaching-resources/teaching-tips/developing-assignments/group-work/group-roles-maximizing-group-performance>

- Cicekci, M. A., & Sadik, F. (2019). *Teachers' and Students' Opinions About Students' Attention Problems During the Lesson*. Canadian Center of Science and Education, 8 (6). 15–30. 10.5539/jel.v8n6p15
- Concannon, F., Flynn, A., & Campbell, M. (2005). *What campus-based students think about the quality and benefits of e-learning*. British Journal of Educational Technology, 36(3), 501-512.
- Dearnley, C. McClelland, G., & Irving, D. (2013). *Innovation in teaching and learning in higher education: literature review*. Council of deans of health.
- Edith Cowan University. (2016). *Peer learning*. ECU Intranet.
<https://intranet.ecu.edu.au/learning/curriculum-design/teaching-strategies/peer-learning>
- Essa, R. M., Al-Battawi, J. I., El demerdash, D., & Ahmed, H. A. (2017). *Effect of application of peer learning strategy on obstetric and gynecological nursing students' clinical performance*. Journal of Nursing Education and Practice, 8(3), 144. <https://doi.org/10.5430/jnep.v8n3p144>
- Fagen, A. P., Crouch, C. H., & Mazur, E. (2002). *Peer Instruction: Results from a Range of Classrooms*. The Physics Teacher, 40, 206-209
<http://www.physics.smu.edu/sdalley/Reform1K/References/Fagen2002.pdf>
- Gai Mali, Y. (2016). *Project-Based Learning in Indonesian EFL Classrooms: from Theory to Practice*. IJEE (Indonesian Journal of English Education), 3(1), 89-105. doi:<https://doi.org/10.15408/ijee.v3i1.2651>
- Garrett, T. (2008). *Student-Centered and Teacher-Centered Classroom Management: A Case Study of Three Elementary Teachers*. Journal of Classroom Interaction, 43(1). 34–47. <https://files.eric.ed.gov/fulltext/EJ829018.pdf>
- Gogus A. (2012) *Peer Learning and Assessment*. In: Seel N.M. (eds) *Encyclopedia of the Sciences of Learning*. Springer, Boston, MA. https://doi.org/10.1007/978-1-4419-1428-6_146
- Hanover Research. (2014). *Best Practices for School Improvement Planning*. Retrieved from <https://www.hanoverresearch.com/media/Best-Practices-for-School-Improvement-Planning.pdf>
- Harper, A. (2019). *Unlearning is often a part of effective teaching*. <https://www.k12dive.com/news/unlearning-is-often-a-part-of-effective-teaching/555066/>

- Hartling, L., Spooner, C., Tjosvold, L., & Oswald, A. (2010). *Problem-based learning in pre-clinical medical education: 22 years of outcome research*, *Medical Teacher*, 32:1, 28-35, DOI: 10.3109/01421590903200789
- Johnson, D. W., Johnson, R. T., & Smith, K. A. (2014). *Cooperative Learning: Improving University Instruction by Basing Practice on Validated Theory*. *Journal on Excellence in College Teaching*, 25(3), 85-118.
http://static.pseupdate.mior.ca.s3.amazonaws.com/media/links/Cooperative_learn_validated_theory.pdf
- Johnston, J. (2009). *How to Implement Peer Learning in Your Classroom*. National Centre for Excellence in Mathematics and Science Teaching and Learning, 1(7) 1-4.
<http://eprints.lincoln.ac.uk/id/eprint/19430/1/How+to+Implement+Peer+Learning+in+Your+Classroom.pdf>
- Korejan, M. & Shahbazi, H. (2016). *An analysis of the transformational leadership theory*. *Journal of Fundamental and Applied Sciences*. 8. 452.
 10.4314/jfas.v8i3s.192.
- Kristiansen, S. D., Burner, T., & Johnsen, B. H. (2019) *Face-to-face promotive interaction leading to successful cooperative learning: A review study*, *Cogent Education*, 6:1, DOI: 10.1080/2331186X.2019.1674067
- Lathan, J. (2021). *Complete guide to teacher-centered vs. student-centered learning*. University of San Diego. <https://onlinedegrees.sandiego.edu/teacher-centered-vs-student-centered-learning/>
- McGaghie, W.C., Bordage, G., Shea, J. (2001) *Problem Statement, Conceptual Framework, and Research Question*, *Academic Medicine*, 76(9). 923-924.
https://journals.lww.com/academicmedicine/Fulltext/2001/09000/Medical_and_Veterinary_Students__Structural.00021.aspx
- Mustafa, G. (2017). *Learning with Each Other: Peer Learning as an Academic Culture among Graduate Students in Education*. *American Journal of Educational Research*. 5. 944-951. 10.12691/education-5-9-3.
- Putri, S. T., & Sumartini, S. (2021). *Integrating Peer Learning Activities and Problem-Based Learning in Clinical Nursing Education*. SAGE Open Nursing.
<https://doi.org/10.1177/23779608211000262>
- Saleh, M., Lazonder, A. W., & Jong, T. de. (2005). *Effects of within-class ability grouping on social interaction, achievement, and motivation*. *Instructional Science*, 33(2), 105–119. <https://doi-org.newdc.oum.edu.my/10.1007/s11251-004-6405-z>

- Struyven, K., Dochy, F., & Janssens, S. (2008). *Students' likes and dislikes regarding student-activating and lecture-based educational settings: Consequences for students' perceptions of the learning environment, student learning and performance*. *European Journal of Psychology of Education*, 23, 295-317. 10.1007/BF03173001.
- Terry, P. M. (n.d.). Empowering Teacher as Leader. <http://www.nationalforum.com/Electronic%20Journal%20Volumes/Terry,%20paul%20M.%20Empowering%20Teachers%20As%20Leaders.pdf>
- Thompson, V. (2018). *How Can Behavior Affect Academics for Students?* Classroom. <https://classroom.synonym.com/info-7964722-causes-classroom-discipline-problems.html>
- Tongco, M. D. (2007). Purposive sampling as a tool for informant selection. *Ethnobotany Research and Applications*, 5, 147-158. doi:10.17348/era.5.0.147-158
- Topping, K. J. (2005). *Trends in peer learning*. *Educational Psychology*, 25(6), 231-645.
- Whiting, K. (2020). *These are the top 10 job skills of tomorrow – and how long it takes to learn them*. World Economic Forum. <https://www.weforum.org/agenda/2020/10/top-10-work-skills-of-tomorrow-how-long-it-takes-to-learn-them/>
- Williamson, S., & Becejac, L. P. (2018). *The Impact of Peer Learning within a Group of International Post-graduate Students – A Pilot Study*. *Athens Journal of Education*, 5(1), 7-27. doi=10.30958/aje.5-1-1
- Yang, Y. (2013). Principals' transformational leadership in school improvement. *Journal of Academic Administration in Higher Education*, 9(2), 77-83. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1140974.pdf>
- Zher, N. H., Hussein, R. M., & Saat, R. M. (2016). Enhancing Feedback via Peer Learning in Large Classrooms. *Malaysian Online Journal of Educational Technology*, 4(1), 1-16. <https://eric.ed.gov/?id=EJ1086243>

Student Enrolment in 2021

Table A.1

Student Enrolment in BBSKJS in 2021

Year \ Race	Chinese		Others		Sub Total		Total
	M	F	M	F	M	F	
Secondary 1	30	12	10	8	40	20	60
Secondary 2	25	13	6	4	31	17	48
Secondary 3	28	21	6	0	34	21	55
Secondary 4	16	12	4	3	20	15	35
Junior College 1 (AS Level)	18	15	11	5	29	20	49
Junior College 2 (A Level)	13	16	3	1	16	17	33
Sub Total	130	89	40	21	170	110	280

(Source: Student Enrolment from BBSKJS registry office)

Legend

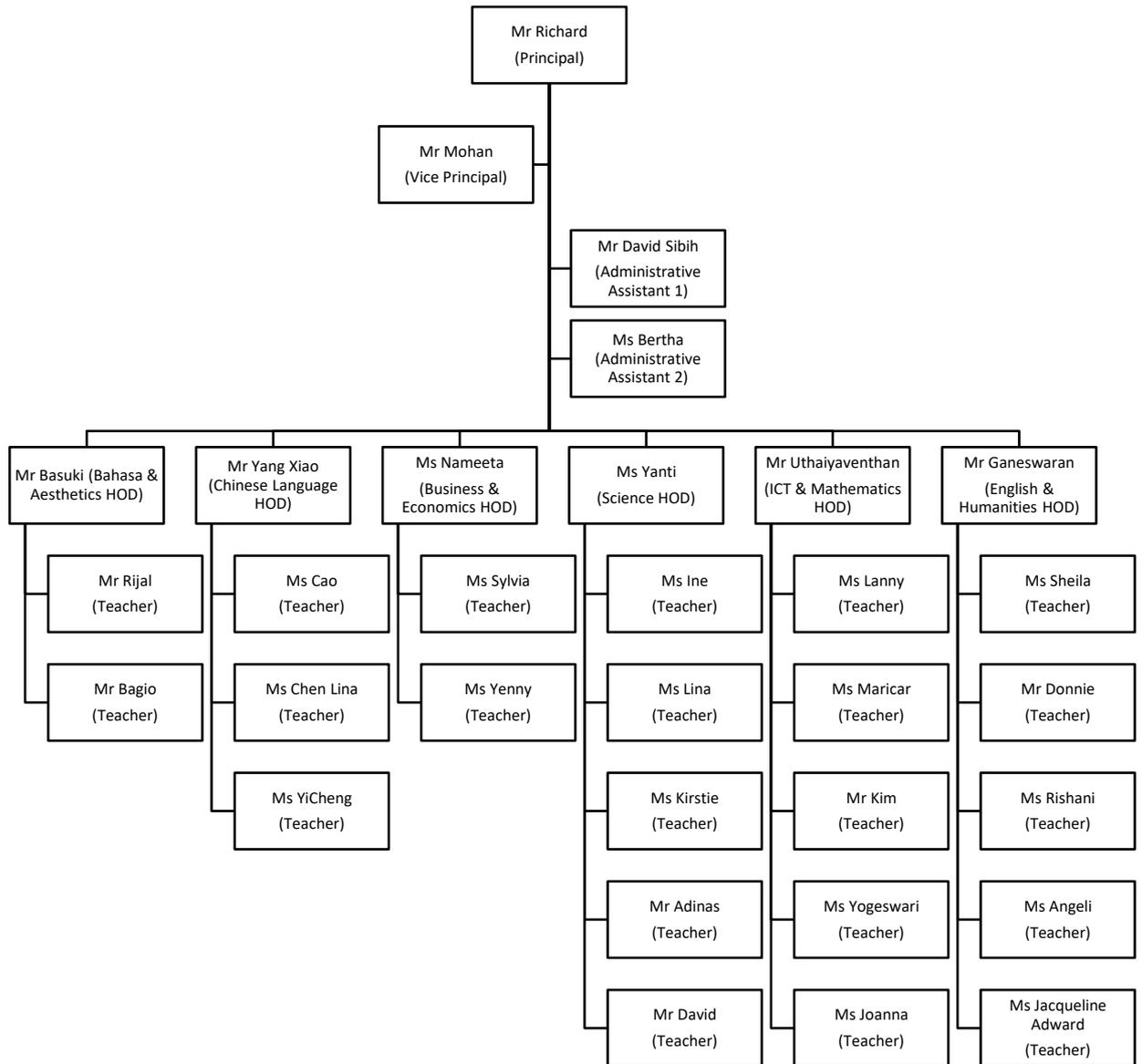
M Male

F Female

Figure A.1

The Organizational Structure of BBSKJS

The Structure of the Organization in 2021



**Questionnaire Administered to Students Before the Implementation of the
Enhancement Project**

Student's Questionnaire

The purpose of the questionnaire is to study student's perception on Global Perspectives & Research learning in an international school in Jakarta. Part A of the questionnaire is intended to collect data on student' background information, meanwhile Part B is designed to collect students' opinion on Global Perspectives & Research learning in the school. The information provided will be kept in absolute confidence and used only for the purpose of this research.

Section A: Demographic Information

INSTRUCTION: Please indicate (√) in the most suitable response regarding your personal details.

A1: Gender

1. Female () 2. Male ()

A2: Class Name

1. Junior College 1 Mendel ()
2. Junior College 1 Forbes ()

Section B: Information on students' perception in the learning of Global Perspectives & Research

INSTRUCTION: Please read carefully and mark a tick (√) under any preference honestly to indicate your perceptions towards each item asked by checking one of the scales given. You can use the scale below as a reference to indicate your response for each item asked.

- 1- Strongly disagree
- 2- Disagree
- 3- Neutral
- 4- Agree
- 5- Strongly agree

No	Items	Responses				
		Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)
1.	Learning Global Perspectives & Research is boring					
2.	I anticipate studying Global Perspectives & Research					
3.	Discovering new knowledge and skills in Global Perspectives & Research is fun					
4.	Global Perspectives & Research learning is interesting					
5.	I pay attention in Global Perspectives & Research					
6.	My mind is deviated in the class					

7.	I guarantee active participant in Global Perspectives & Research					
8.	I enjoy working with my peers					
9.	Global Perspectives & Research learning is beneficial					
10.	I prefer tasks that require critical thinking and collaboration					
11.	I do my best in any Global Perspectives & Research coursework that is assigned					
12.	I am satisfied when my ideas are accepted by others					
13.	I am very satisfied when I solve difficult problems					
14.	I think activities implemented during the class are exciting					
15.	I believe I score well in Global Perspectives & Research exam because of the activities done during class					

Thank You for Your Time! ☺

**Questionnaire Administered to Students After the Implementation of the
Enhancement Project**

Student's Questionnaire

The purpose of the questionnaire is to study student's perception on Global Perspectives & Research learning in an international school in Jakarta. Part A of the questionnaire is intended to collect data on student' background information, meanwhile Part B is designed to collect students' opinion on Global Perspectives & Research learning in the school. The information provided will be kept in absolute confidence and used only for the purpose of this research.

Section A: Demographic Information

INSTRUCTION: Please indicate (√) in the most suitable response regarding your personal details.

A1: Gender

1. Female () 2. Male ()

A2: Class Name

1. Junior College 1 Mendel ()
2. Junior College 1 Forbes ()

Section B: Information on students' perception in the learning of Global Perspectives & Research

INSTRUCTION: Please read carefully and mark a tick (√) under any preference honestly to indicate your perceptions towards each item asked by checking one of the scales given. You can use the scale below as a reference to indicate your response for each item asked.

- 1- Strongly disagree
- 2- Disagree
- 3- Neutral
- 4- Agree
- 5- Strongly agree

No	Items	Responses				
		Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)
1.	Learning Global Perspectives & Research is boring					
2.	I anticipate studying Global Perspectives & Research					
3.	Discovering new knowledge and skills in Global Perspectives & Research is fun					
4.	Global Perspectives & Research learning is interesting					
5.	I pay attention in Global Perspectives & Research					
6.	My mind is deviated in the class					

7.	I guarantee active participant in Global Perspectives & Research					
8.	I enjoy working with my peers					
9.	Global Perspectives & Research learning is beneficial					
10.	I prefer tasks that require critical thinking and collaboration					
11.	I do my best in any Global Perspectives & Research coursework that is assigned					
12.	I am satisfied when my ideas are accepted by others					
13.	I am very satisfied when I solve difficult problems					
14.	I think activities (Peer Learning) implemented during the class are exciting					
15.	I believe I score well in Global Perspectives & Research exam because of the activities (Peer Learning) done during class					

Thank You for Your Time! ☺

Term Test – September 2021

The documents below consider issues related to endangered cultures. Read them **both** in order to answer **all** the questions on the paper.

Documents 1 and 2 are adapted from “*Could the antiquities trade do more to combat looting?*” The articles were published in *Apollo* magazine in 2015.

Document 1: adapted from the article written by Mark Altaweel, archaeologist and Senior Lecturer in Near Eastern Archaeology, University College London.

There is a debate between those who support a legal antiquities (ancient objects) trade, and those who are entirely against it. This debate is often focused on ethics: is it acceptable to buy and sell a country’s cultural heritage? Are antiquities dealers encouraging looting (stealing) from archaeological sites by creating a market for ancient objects?

The conflicts in Syria and Iraq (two countries in the Near East) force us to take a different look at both legal and illegal antiquities trades. Antiquities have become a major source of finance for parties involved in violence.

I recently visited dealers of antiquities in London, to discover what objects from Syria and Iraq were being sold. I soon realised that many had probably come from this region. When I asked dealers, they were not sure when the objects left their countries of origin. Some dealers suggested they may have been obtained recently.

Soon, possessing such objects will be illegal. The UK Government will sign up to the 1954 Hague Convention for the Protection of Cultural Property. This bans trade in antiquities that have been taken from conflict zones during the conflict. However, the provenance of antiquities (documentary proof of their history/origin) from these regions can be vague. These objects could have been obtained long ago.

There is a problem with looking at the trading of antiquities as just an ethical issue. This ignores much worse developments in the Near East. There is a strong suspicion that armed groups on all sides are selling antiquities to finance themselves. Therefore, the trade and market in antiquities from the region helps the conflict continue. This leads to more refugees and more deaths. We see the consequences close to home. Europe has its biggest refugee crisis since the Second World War. It is true that we have no accurate figures for how much funding armed groups are getting from this market. However, videos, photographs, and satellite imagery of recently looted sites suggest it is huge.

So how does this affect the legal trade in antiquities? The legal antiquities market should admit that it is involved in a trade that has global consequences. Experts from the region often cannot tell if antiquities were obtained legally. So how should we expect border officials and others to do so? If the legal antiquities market begins to obey present law and support future legislation, then at least we have a chance to stop this trade that keeps conflict going.

I believe that the legal antiquities market should ban sales of all objects from areas of continuing conflict. I also believe that a ban like this should be supported by national and international laws. Archaeologists, who know these conflict regions, can create a list of objects that might be looted. This list should be provided to border officials everywhere. Finally, the legal antiquities trade should reject conflict antiquities, just as 'blood diamonds'* are rejected by the diamond business. This would reduce the trade in such items.

Given the risks in buying antiquities, we should end all trading in antiquities which come from conflict regions, no matter when the objects were obtained.

* 'Blood diamond' is a term used for a diamond mined in a war zone and sold to finance an internal rebellion, an invading army's war efforts, or a warlord's activity. They are also known as 'conflict diamonds'.

Document 2: adapted from: Could the antiquities trade do more to combat looting? published in Apollo magazine in 2015. This article was written by James Ede, member of the International Association of Dealers in Ancient Art (IADAA), London, and Chairman of Charles Ede Ltd, a dealer of Greek, Roman and Egyptian antiquities in London, UK.

The greatest crisis facing world heritage is taking place in Syria and Iraq. The major causes of this are the shelling and bombing of war, and demolition of monuments. However, headlines suggest that the trade in looted antiquities is the main problem and can be blamed on the legal antiquities market. This is clearly not the case.

Many people believe that billions of euros' worth of antiquities are entering the market from Syria. They suggest that dealers arrange for objects to be stolen to sell to collectors. No one has ever produced any evidence of this. We do not doubt that there is looting. However, the legal market is small and most antiquities have a low value: the global turnover for all antiquities is less than €200 million (\$220 million) a year. Objects from Syria are probably less than 10% of this, of which illegal material might amount to €5 million (\$5.5 million) – a lot of money, but not by art-market standards.

However, we cannot be self-satisfied. The antiquities trade has not always had a good record in dealing with smuggled material, or provenance of objects. The International Association of Dealers in Ancient Art (IADAA) was founded in 1993. One of its main aims was to change attitudes among dealers and things have improved dramatically.

We are working closely with the UK Government. We have listened to our critics and made huge progress. No association has a stricter code of ethics. No other area of the art market values provenance more than we do. The evidence is at auction: objects with good provenance sell at higher prices. But, however strong our rules are, information from the countries of origin is not always available.

So, can we help to save something from the disaster in Syria? No doubt illegal material is being hidden away and will come onto the open market sooner or later – it could be years from now. The help of the trade is going to be vital in facing this problem. Now, the technology exists to record objects cheaply. The IADAA suggests that UNESCO should support museums and storage facilities in photographing all their holdings. Once an object is recorded, the chances of recovery improve enormously. The same applies to archaeological sites above ground. This is of course no help in the case of secret excavation, but it is a start.

Most legally owned objects have no real provenance. The IADAA is working on a project to record objects that are on the market. This will also make life much more difficult for those who deal illegally. The success of this project will rely on support from all sides, including those who just criticize the trade. This criticism will have to stop.

The legal trade has no interest in the illegal traffic in stolen antiquities. Archaeology started with collectors; the first museums were founded by collectors. It is the job of museums to collect and conserve for the benefit of the public. This is impossible without the legal antiquities trade. So, at its best, the legal antiquities trade is a positive force, supporting conservation and research.

Read the documents above and answer **all** the questions.

Endangered cultures

1. Study Document 1.

- a) Identify **two** groups of people who could help prevent the trade in conflict-zone antiquities, mentioned by the author in Document 1. [2]
- b) Explain **two** negative effects of selling conflict-zone antiquities, mentioned by the author in Document 1. [4]

2. Study Document 1.

Assess the strengths and weaknesses of the argument about trade in conflict-zone antiquities, given in Document 1. [10]

3. Study Documents 1 and 2.

Both authors discuss the issue of trading antiquities from Syria and Iraq. To what extent does the author's argument in Document 2 challenge that in Document 1? [14]

[Total: 30]

Term Test – December 2021

The documents below consider issues related in reducing water pollution. Read them **both** in order to answer **all** the questions on the paper.

Document 1: Adapted from *Using Technology to Reduce Plastics in the Oceans*, an online article published SAFETY4SEA. This is an organization incorporating GREEN4SEA & SMART4SEA with a mission for safe ships & clean seas, committed to promote safer, smarter & greener shipping. It also publishes monthly paper magazines & special publications along with video & social media to communicate news, insight, intelligence and opinions.

Our oceans are currently facing three major challenges: climate change, overfishing and pollution. Plastic pollution in particular is increasing and has received international attention from governments, media and large sections of the public. In order to mitigate this problem, technology might give the solution.

One group using technology is the Ocean Cleanup group which uses several 600-metre long barriers to float in the ocean current and catch plastic drifting in the surface waters of the gyres. It was invented by a then 19-year-old student, and is trying to limit ocean plastic on a large scale. It is a non-profit organization that is developing advanced technologies to rid the world's oceans of plastic litter. They are using satellite imaging and machine learning to help clean up and capture the 5 trillion pieces of plastic trash they have observed in the world's "ocean garbage patches." They estimate that within 5 years they could collect 50% of the ocean's garbage. Also, the European Space Agency (ESA) has also announced that it will use satellites to detect and track this vast quantity of plastic from space to find where it is most concentrated and to focus cleanup efforts on these areas.

In addition, Peter Kohler, Plastic Tide's director, came up with an idea to measure the size of plastic effectively. Namely, using drone-mounted cameras, a large number of aerial photos are taken. These photos will be later used in order to train AI to identify images of plastic waste and know the difference between shells, jellyfish or plastic products. Many volunteers and scientists are taking part in the project to help the machine learn how to identify plastic. This technology aims to create an accurate map of the worst-polluted coastlines. It also aims to monitor the seabed and the sea surface. In the future, Mr. Kohler hopes to create a system which will be able to document the spread of plastics in real time. If this happens, it will not only provide an accurate map of where plastics are, but it could also improve the impact of policies, such as those banning plastic bags.

The power of the internet connects people to causes they care about and to raise awareness on critical issues. Recently, the UNEP campaign, #BeatPlasticPollution, aims

to get people to pledge to give up single use plastics. Using social media awareness, they are raising funds and challenging teams to hold events across the globe. Patricia Espinosa, Executive Secretary of United Nations Framework Convention on Climate Change (UNFCCC) issued a challenge to Arnold Schwarzenegger and Leonardo DiCaprio to use their star power to raise awareness and they both accepted the challenge and re-tweeted the post.

However, these initiatives alone are not enough. In order to reduce the plastic pollution, we must produce less, and throw away less of it. This requires changes in industrial processes, and government policies globally.

Document 2: adapted from *Towards a New Water Culture*, an article written by Professor Helmut Kroiss, who is an expert in design & operation of municipal and industrial wastewater treatment plants & interdisciplinary river basin management. For over 25 years, he was a Professor at the Institute for Water Quality, Resource and Waste Management at the Vienna University of Technology.

Water is such a basic requirement for survival, for humans and our natural environment. Indeed water shapes cultures. The way we manage (or mismanage) water defines the future of mankind. The way we perceive and talk about the value of water is at the heart of the relationship between water and culture. For too long, we ignored this while defining new frameworks of national water legislation and international obligations. Going forward we have to be more explicit about the value of water, as the basis for the implementation of sustainable water management. How we define, perceive and use the value of water defines how we develop innovative water solutions and create transformational water policies.

For a sustainable water world to become reality, we need to create a new water culture. A culture that clearly defines the ethics that underpin the responsibilities that come from a fundamentally different attitude to water. As culture is an inter-subjective phenomenon, it has to be developed by engaging all relevant stakeholders to get to a basis of “consent” and establish the related new patterns of behavior. Whether it is the basic right of every individual to have access to water in sufficient quantity and quality, or the basic principles of protection and replenishment of ecosystems and the natural environment, as cornerstones of our water values, they have to be built up by the broad consent of all stakeholders. It is only then that our policies and legislation can further drive the establishment of new patterns of behavior that exemplify our new relationship to water.

A new water culture supports common approaches and language that connects diverse stakeholders. It is only on the basis of a common language that we can hope to start to address and overcome some of the most critical water issues. A common language whether at local, national or transboundary level, is also crucial to learn from one another, to share best practice, to overcome obstacles. Establishing a common language connects across sectors and across disciplines.

The European Water Framework Directive is a good example of a multi-country effort to find “consent” for both national and transnational water management. Such an approach, however, requires water management to be based on comprehensive data covering long periods of time and on continuous quality assessment. Having sufficient information available for all stakeholders is a critical element of building the new water culture. The main problem linked to water management practice developed in moderate climatic conditions is applying it to regions with completely different environmental conditions. Throughout history, urban development was strongly related to local water availability; today with enough energy, we are able to supply water in regions where the

natural water resources do not exist in sufficient quantity to support human activities and ecosystems. Ultimately, this leads to a continuously increasing conflict between population growth and water management.

Equally important, we must recognize that water is not only a consumable product that can be “bought” according to the financial capacity of the consumer; water is also a good we have to share with all: humans, industry, agriculture and natural environment. The right to use water is limited by the “need for water”. We have to negotiate in society what the most beneficial way for water use is. Words are vital here. For example, let’s stop using the word ‘wastewater’. It sends the wrong message and forms part of a past paradigm and culture. We can easily adopt the term ‘used water’, indicating that the water is used but also that it continues to have value and can be the source of further resources for future use.

The growing demand for innovative public water policies and regulations makes clear the need for a new water culture. These new policies and regulation place the value of water and address the roles and responsibilities of all stakeholders. The Lisbon Charter on public water policy and regulation, recently adopted by the International Water Association, forms an excellent basis to support the development of a new water culture. It offers a vision for new policies and regulation that can be transformative in shaping sustainable water management. The IWA stands ready to support national governments to use the Lisbon Charter to further inform and support the development of new public water policies and regulations.

Read the documents in the accompanying Resource Booklet and answer **all** the questions:

Water Pollution

1. Study Document 1.

- a. Identify **two** major challenges our oceans are currently facing mentioned in Document 1. [2]
- b. Identify **two** ways how technologies mentioned in Document 1 provide valuable solutions in our water problems. [2]

2. Study Document 1

Assess the strengths and weaknesses of the evidence given in Document 1 to support the argument. [12]

3. Study Documents 1 and 2.

To what extent is the argument in Document 2 stronger than that in Document 1? [14]

[Total: 30]