

# **UHLB2122: ACADEMIC COMMUNICATION SKILLS**

## **READING REFLECTION (20%)**

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**MATRIC NUMBER: A19EC0186 & A19EC0206**

**SECTION: 36**

**GROUP NAME: CLKW**

**ACADEMIC PAPER TOPICS: Something related to problem based learning and traditional instruction (not finalized yet)**

**Title of Article 1:** Effects of Problem-Based Learning (PBL) and Traditional Instruction on Self-Regulated Learning

Source	<p>Sungur, S., &amp; Tekkaya, C. (2006). Effects of Problem-Based Learning and Traditional Instruction on Self-Regulated Learning. <i>The Journal of Educational Research</i> 99(5), 307-317.</p> <p>In-text citation: (Sungur &amp; Tekkaya, 2006)</p> <p><a href="https://www.umbc.edu/ereserves/pdf/fall19/PSYC%20671%20VENAGLIA/Effects%20of%20Problem-Based,%20Sungur&amp;Tekkaya,%20pysc671%20fa19%20Venaglia.pdf">https://www.umbc.edu/ereserves/pdf/fall19/PSYC%20671%20VENAGLIA/Effects%20of%20Problem-Based,%20Sungur&amp;Tekkaya,%20pysc671%20fa19%20Venaglia.pdf</a></p>
Main Arguments/ Ideas	<ul style="list-style-type: none"><li>• Proved that students' task value and intrinsic goal orientation were positively affected by PBL.</li><li>• A higher test anxiety level was present in the PBL group when compared with the students from the control-group (traditional instruction).</li><li>• Discovered that students' elaboration strategies, metacognitive self-regulation, peer learning, effort regulation, and critical thinking were enhanced by PBL.</li><li>• Cognitive strategies such as paraphrasing, generative note taking, and summarizing, were used by PBL students more than the traditionally instructed students, to integrate and make sense of new information.</li><li>• PBL students were better at applying previous knowledge to make decisions and solve new problems than traditionally instructed students.</li><li>• PBL students seem to practice metacognitive self-regulatory activities like monitoring and planning more than traditionally instructed students did.</li><li>• PBL students cooperate more together and tend to value cooperation more than the traditionally instructed students.</li><li>• Claims that presentations and reports made before and after each PBL sessions regarding what they have learned, was able to help the students to monitor their learning progress, perform self-evaluation, and set appropriate learning goals for the future.</li><li>• Showed that the self-regulatory skills of students in the 10<sup>th</sup> grade were enhanced by PBL.</li></ul>

**Title of Article 2:** A Comparative Study of the Effect of Problem Based Learning and Traditional Learning Approaches on Students' Knowledge Acquisition.

Source	<p>Masek, A., &amp; Yamin, S. (2012). A Comparative Study of the Effect of Problem Based Learning and Traditional Learning Approaches on Students' Knowledge Acquisition. <i>International Journal of Engineering Education</i> 28(5). 1161-1167.</p> <p>In-text citation: (Masek &amp; Yamin, 2012)</p> <p><a href="https://www.researchgate.net/publication/259873856_A_Comparative_Study_of_the_Effect_of_Problem_Based_Learning_and_Traditional_Learning_Approaches_on_Students%27_Knowledge_Acquisition">https://www.researchgate.net/publication/259873856_A_Comparative_Study_of_the_Effect_of_Problem_Based_Learning_and_Traditional_Learning_Approaches_on_Students%27_Knowledge_Acquisition</a></p>
Main Arguments/ Ideas	<ul style="list-style-type: none"><li>• Showed that PBL students were better than traditional students in terms of acquiring knowledge when it comes to the aspect of procedures and principles.</li><li>• Results showed that PBL positively affects the principles knowledge acquisition of students, but contradicts previous findings regarding positive reports in the aspect of concepts knowledge acquisition.</li><li>• Suggests that the education system nowadays should focus more on the application of knowledge, rather than placing more importance on the theory of knowledge.</li><li>• PBL might not be suitable for knowledge about procedures in the context of subject-centric problems.</li><li>• Showed that the traditional approach produced students who excelled much greater than PBL students in terms of concepts acquisition.</li><li>• Students' ability to apply the knowledge that they have learned, can be significantly improved by PBL.</li><li>• States that traditionally instructed students were better than PBL students at memorizing facts and concepts, but their retention of these memory were lesser when compared to PBL students.</li><li>• Argues that PBL might be more effective to be used to nurture the students' procedural knowledge when they are in the latter years of their studies.</li></ul>

**Instruction: Write your reflection of both articles in between 400 and 500 words.**

<p>Our Reflection</p>	<p>As summarised in both of the tables above, there are a few main arguments given by the articles. Sungur and Tekkaya (2006) explored the effectiveness of problem-based learning (PBL) and traditional approaches in the learning process of 10<sup>th</sup> grade students. Overall, they proved that many aspects of the students learning skills such as their elaboration strategies, metacognitive self-regulations, critical thinking, etc. were positively affected by PBL. On the other hand, Masek &amp; Yamin (2012) took a slightly different approach in their study related to PBL, where a comparative study was done to compare the student's knowledge acquisition abilities between PBL and traditional instruction. They concluded that PBL outperforms traditional instruction in terms of the acquisition of procedural and principle knowledge, whereas the opposite is true when considering the acquisition of conceptual knowledge instead.</p> <p>Overall, both articles similarly proved that PBL benefited students more than traditional approaches. For instance, the positive effect that PBL has on the students' task value and goal orientation, and the enhancement of the students' critical thinking, elaboration strategies, etc. by PBL (Sungur &amp; Tekkaya, 2006), both supports the findings of the second article, claiming that PBL students is better at acquiring procedural and principle knowledge than traditionally instructed students (Masek &amp; Yamin, 2012). However, the articles differ in their methods of study, as well as their scope. The difference is obvious where the first article focused on the task value and intrinsic goal value of the students affected by PBL, whereas the second article focused on the knowledge acquisition of the students. Although their topic of study is similar, they have different goals and approaches taken.</p> <p>In our opinion, both articles provided significant and useful information to be considered in our academic paper. Initially, we believed that there were no significant differences between PBL and traditional instructions because we have been taught using both of them, but we did not feel any obvious differences. However, these articles proofed that PBL is indeed more effective in various aspects, prompting us to consider a different perspective before writing our academic paper.</p> <p>From the first article, the fact that PBL students participate in tasks for challenge and due to curiosity more than traditionally instructed students, can be used as an example to support the claim that PBL improves the students' task value and intrinsic goal</p>
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orientation. Additionally, the demonstration of resistance, current, and voltage as concepts, and their relationship as principles, is an excellent example for differentiating between concepts and principles as mentioned in the second article.

There is one statement of generalisation worth mentioning, where the authors in the second article argued that PBL might be more effective in the latter years of studies. We disagree with this generalisation as there might be students who will be greatly affected by PBL even in their early years.

All in all, both articles were relevant to our topic of study, and there is no doubt that they have provided significant information for us to consider when writing our academic paper.

(500 words)