

Burj Khalifa



SPSE Reading & Writing Test

EXAMPLE

Question: *Making reference to the points made in texts 1, 2 & 3, outline the situation and problem(s), summarise the solutions suggested and evaluate their effectiveness. Write between 400-600 words.*

Teacher's Notes

Reading & Writing Test - SPSE

Time: 1:30 – 2:00 hours

Level: ***/[B2/C1]**

Lesson Plan

Aim: to develop the students' ability to read three academic texts and highlight key points connected to situation, problems, solutions and evaluation. Students then use the key points to write a 400-600 word SPSE essay using summarising, paraphrasing and referencing skills.

Lead in

- Students name some famous sky scrapers.
- Feed in examples: *Burj Khalifa (828m), Shanghai Tower (632m), Taipei 101 (503m), Shanghai Financial Centre (493m), Petronas Towers (451m), Empire State Building (381m)*
- Focus on Burj Khalifa & ask students: Where is it? What is it? What else do they know about it?

SPSE Revision

- Remind students what an SPSE essay is.
- Go here: <https://www.academic-englishuk.com/spse> (Models / Language).

Task

1. Students read **essay question** and check understanding.

Essay Question: Making reference to the points made in texts 1, 2 & 3 outline the situation and problem(s), summarise the solutions suggested and evaluate their effectiveness. Write between 400-600 words.

2. Distribute **SPSE essay outline** & the **three texts**.
3. Students take notes on the **three texts** using the **SPSE essay outline**.
4. Students write essay from their outlines. Allow 1.30 – 2.00 hours.
5. Feedback: Either distribute **SPSE essay outline answers** & **model essay** for students to check themselves or take in and mark. Use error correction code:
<https://www.academic-englishuk.com/error-correction>

Scaffolding/differentiation

- Students compare with **SPSE essay outline answers** before writing essay.
- Distribute **key phrases sheet** to support students with SPSE language.

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Burj Khalifa: The Project

Text 1: by Atkinson (2009)

The UAE, located in Middle East, is the third largest oil-producing country in the world. Currently, and over [REDACTED] have been taking place in the UAE. This is especially true of Dubai, one of the seven emirate states of the UAE. Dubai [REDACTED] economy in recent years and has also become a popular tourist attraction for visitors to the Middle East. Dubai has also become famous for its [REDACTED] of those towers is the 828m Burj Khalifa, which was built over a five-year period from 2004 to 2009. Originally named [REDACTED] in tribute to Sheik Khalifa Bin Zayed al Nahayah; ruler of Abu Dhabi, who provided a \$10bn bailout package to Dubai in 2008 when a number of [REDACTED] and bankruptcy.

The Burj Khalifa was designed to be a milestone of ingenuity, inspiration and achievement. An architectural characteristic of the tower is that it represents a flower on the desert to express a [REDACTED]. Technically, the tower exceeds architectural innovation through its application of a reinforced concrete and steel frame. This planning phase had to overcome [REDACTED] achieved through adopting a Y-type base (Figure 1) and spiralling construction patterns (Figure 2). From a [REDACTED] has several important building features. The tower is made up of 160 stories designated for leisure, business and residential use. The project implemented a new construction [REDACTED] aims to raise the entire construction one storey every three days. Much of this construction was done [REDACTED] in controlling the cement temperature. The distinctive features of the build are mainly attributed to the project management team and their [REDACTED] of build quality.

Figure 1: Y-Type Base



Figure 2: Spiral Construction Pattern



All images included in paid version

Burj Khalifa: Project Failure

Text 2: by Dobson (2011)

The internal measure of project success may be whether the project has accomplished what it was supposed to accomplish. The important aspect is that an evaluation of the project should [redacted] to the outcome. The prime criterion of success is what has been called the Iron Triangle, a criterion which measures the project based on [redacted] evaluating criterion it deems the Burj Khalifa as a failure as a project. From the point of view of cost, the initial planned [redacted]. The final cost, however, was approximately \$1.5bn. This rise was attributed to the prices of raw materials which had gone up significantly due [redacted] in 2008. According to the report of Global Informinell (2008), the price of iron had increased by 75% within [redacted] as aluminum, and cement had also increased. In addition, changes in design were also responsible. The final height of the building was reconstructed becoming [redacted] design. Also, the Armani hotel chain demanded that the interior design was to be more luxurious. T [redacted] earned value compared to initial plan and cost. The project's cost management was a significant failure.

Regarding time, originally the duration of project was set for forty-seven months, starting from February [redacted] excavation time. However, the Burj Khalifa project was completed nine months later, on September 2009. The change of design influenced this, but [redacted] deteriorating economic condition caused a delay in the construction. This was called the Dubai shock, and was [redacted]. As a result, this economic decline halted construction for four months in 2008.

With regards to quality, the main constructors, Samsung Engineering and Besix, introduced new technologies based on [redacted]. For example, Burj Khalifa was built using mixed reinforced concrete in order to stand against heavy wind and pressure. [redacted] engineers did a multitude of practice tests prior to the construction of the tower. This testing phase was important because it allowed engineers to plan [redacted]. If these tests were not carried out, and problems were found later during the construction of the building, the [redacted] increased significantly. From the point of quality, the project is successful.

Burj Khalifa: Project Planning

Text 3: by Barkley (2012)

It is a well-known fact that increasing the duration of a project increases the probability of risk. Due to the [redacted] rationale in raising the height of the building was questionable, as Burj Khalifa had already reached the world's tallest [redacted] to be a serious error of judgement to incur more costs at a time of uncertainty. This also includes meeting Armani's demands too. A much more [redacted] decision, would have been to stay with the original plan.

Although this project was successful in meeting many parameters, it failed the two objectives of [redacted] was not able to meet the expectations of the shareholders and was criticised as a failure. The project did not reach clear pre-negotiation [redacted] that even though the concept of the project is right, if planning and execution is not adequate, this can still [redacted] negotiated planning is recommended because repeated changes of plan eventually increase risk to customers. Indeed, a continuously reviewed project plan that is [redacted] of economic recession and price increases in raw materials can maximize the effectiveness of the project. Naturally, [redacted] fluctuations are incredibly difficult to predict and balance.

Success should not be solely measured through Project Evaluating Criterion (The Iron Triangle). Other [redacted] include the impressive architectural ingenuity and innovative engineering in succeeding such a flamboyant project, [redacted] technology. At present being the world's tallest building, breaking eight world records and encouraging tourism (45% increase) and business (37% increase) to the area have [redacted], and proclaiming to the world that Dubai is a major emerging economy. A final point is the Sydney Opera House (Figure 3) went [redacted] months longer to complete but no one ever says this was a failure. Only time will tell.



Figure 3:
Sydney Opera House

SPSE Outline

<u>Situation</u>	
<u>Problems</u>	<u>Solutions</u>
<u>Evaluation</u>	
<u>Conclusion</u>	

Outline Answers

Situation

Middle East - UAE. [redacted]
Dubai - Burj Khalifa.
[redacted] skyscraper.
160 storeys: leisure, business & residential (Atkinson 2009).
[redacted] technology (Atkinson 2009).
Iron Triangle - failure on cost & time (Dobson, 2011).

Problems

1. Money: [redacted] 2008 economic crisis (Dobson, 2011).
2. Wind [redacted] (Atkinson 2009).
3. Concrete [redacted] (Atkinson 2009).
Project Failure - cost & time.
4. Cost: \$876m = [redacted] materials, 2008 crisis, 100m height change, [redacted] (Dobson, 2011).
5. Time: 9 months over 2005 – 2008 = 2005 – 2009. Dubai shock = 4 months no work (Dobson, 2011).

Solutions

1. Sheik Khalifa [redacted] package (Atkinson 2009).
2. Y-shaped base [redacted] construction (Atkinson 2009).
3. Worked [redacted] (Atkinson 2009).
4. Better plan (a plan that predicts changes in world economies). Changing the [redacted] luxury was a mistake in 2008 (Barkley, 2012.)
5. Same as 4.

Evaluation

Failure in project [redacted] but not necessarily [redacted] (Barkley, 2012).

Sheik [redacted] = finish build (Atkinson 2009).

Could you predict financial crisis? (Barkley, 2012).

Y-shape base & [redacted] help wind resistance (Atkinson 2009).

Evaluation

Well-managed project team (Dobson, 2011).

Tallest building: set records & influenced construction (Barkley, 2012).

Increase in [redacted] (Barkley, 2012).

Economic [redacted] & emerging economy. (Barkley, 2012)

Conclusion

Time will tell (Barkley, 2012).
Sydney Opera house example (Barkley, 2012).

Burj Khalifa Model Answer

Dubai, in the UAE, has recently built the tallest skyscraper in the world called the Burj Khalifa. It aspires to a [redacted] innovative construction has changed construction technology, paving the way for a future of impressive high skyscrapers. [redacted] a number of issues when constructing such a high building which included using reinforced concrete, a y-shape base and spiraling constructive patterns (Atkinson, 2011). However, Dobson [redacted] was deemed a failure based on a number of project criterion under the theory of the Iron Triangle, [redacted]. This essay will discuss the main problems connected to failure, offer suitable solutions and then evaluate their effectiveness.

There are two main problems with the construction of [redacted]. With regard to the former, the initial plan was projected at \$876m; however, the final cost was [redacted] (2012), much of the cost increase was due to the 2008 financial crisis, where the price of raw building materials [redacted] (Global Informinel as cited in Dobson, 2012). Nevertheless, changes in design were also responsible, [redacted] the skyscraper 100m taller and much more luxurious (Dobson, 2012). It is important to highlight that these changes at a time of economic downturn placed the project into [redacted] of Abu Dhabi, provided \$10bn support (Atkinson, 2011). The second problem was that the project [redacted] Dobson (2012) highlights that the “deteriorating economic conditions caused delay” and as a result “halted construction for four months”. Barkley (2012) claims that increasing [redacted] of risk.

There [redacted] that could have been implemented to prevent the building project from failure. According to Barkley (2012), [redacted] difficult to predict but some of the decisions made in that period of economic uncertainty were [redacted] (2012) asserts that if the planners had stayed with the original plan and not raised the height or met Armani's luxury demands, then it is probable that the [redacted] and had not gone into near bankruptcy. Another clear solution is the forward-thinking of project planning. Project [redacted] markets, follow prices of raw material and look for economic instability, which in turn would guide [redacted] (Barkley, 2012).

With better project management, adhering to the original plan in times of economic uncertainty and [redacted] is the possibility the project would have been a success in the project criterion of the Iron Triangle. Of course, the predictability of raw material [redacted] complex areas and in depth planning and review may still not indicate volatile changes. Overall, it is debatable [redacted] (Barkley, 2012). To evaluate success on three main criteria is simplistic and not a true guide to achieving success. The project was completed, has improved [redacted] the world that Dubai is at the forefront in engineering construction technology. It would be important to [redacted]. [553 words]

Key Phrases

Situation

Follows the conventions of an introduction

(general > specific > definition > situation > outline)

Outline: This essay will discuss two problems, propose possible solutions and evaluate the effectiveness of these solutions.

Problems

Adjective: central / main / major / common / immediate / serious / significant.

Verbs: associate / raise / consider / discuss / address / resolve / discuss.

- The most significant problem is...
- ... poses / presents an immediate problem because...
- Another possible issue is ...

Cause & effect language

Leads to / results in / gives rise to / as a consequence / owing to / because of / as a result.

Cause and effect phrases

This suggests / ... Is linked to / associated with / connected to ... / ... may be affected by...

Solution

Adjective: long-term / short-term / proposed / effective / comprehensive / possible / practical / feasible / cost-effective / workable / realistic.

Verbs: propose / put forward / suggest / adopt / provide.

- One possible solution would be to.... / One way of solving the problem is...
- One practical approach could be to...

Evaluation [Show both positive effects and negatives]

- Implementation of these solutions would ... However, ...
- Although these solutions provide..., there are a number of limitations. The first one is...
- Overall, these solutions offer a range of ... , but it needs to be highlighted that...

Conclusion [Make a decision]

In conclusion / to sum up / to conclude.

If clause : if these solutions are implemented, then this would ...