RESEARCH OUTCOME

ASSESSMENT TYPE 2

"Using Holy Trinity Church (1838) and St Alphonsus Millicent Church (1966) as case studies, how and why has the architecture of churches in South Australia changed? What parts have stayed the same and why?"

The beginning of Church Architecture in Australia

The original style of churches was brought to Australia with the early settlers from England. With this came the name of the Victorian style, which refers to the reign of England's Queen Victoria. This style is divided into three time periods; these are the Early Victorian, which was present from 1840 to 1865, Mid Victorian, 1865 to 1880 and Late Victorian, 1880 to 1890 (Tasmanian Heritage Council, 2014).

Victorian/Gothic Style

Through my researching of many gothic churches, I discovered that features of the Victorian/Gothic style that identifies these churches are clocks, high ceilings, steeples, spires, arched windows and doorways, pitched roofs and slender columns.
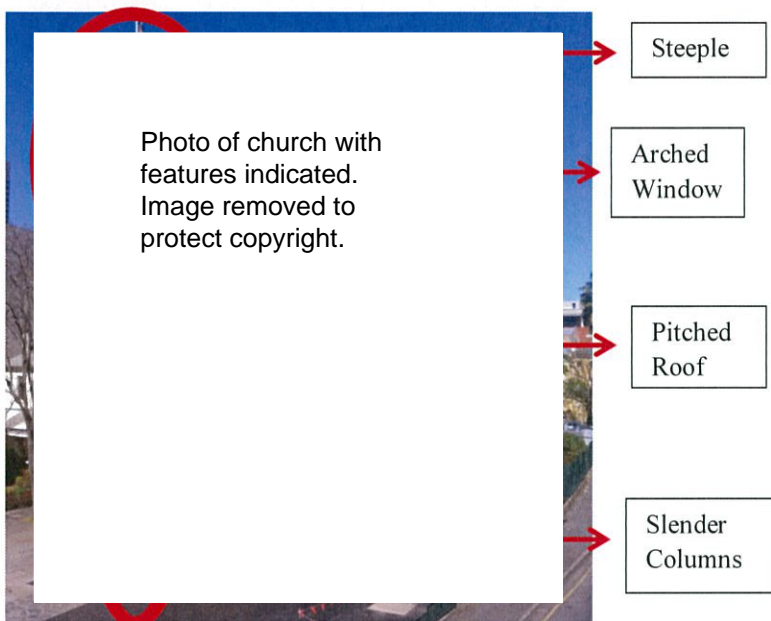
Photo of church with features indicated. Image removed to protect copyright.

→ Steeple

→ Arched Window

→ Pitched Roof

→ Slender Columns

Figure 1

(Adelaidebyphoto.blogspot.com.au, 2011)

Photo of church with features indicated. Image removed to protect copyright.

→ Spire

→ Clock

→ Arched doorway

Figure 2

(Ross, 2010)

S2 Substantiation of knowledge and ideas. Use of photos and labelling supports findings. Appropriately attributed.

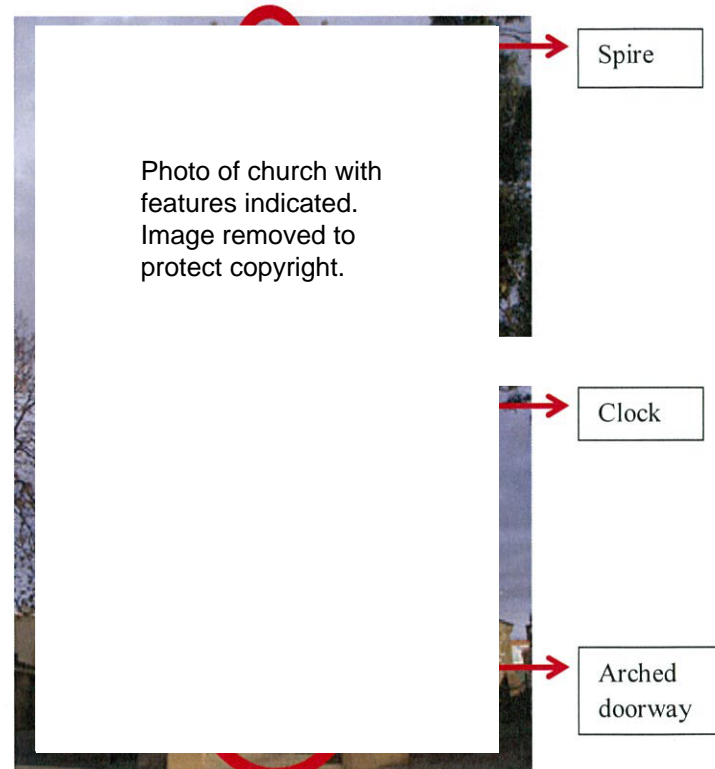**S3** Use of photos adds to the coherency of the discussion.

Holy Trinity Church

The first churches in Australia were built in the Victorian/Gothic revival style. Holy Trinity Church was South Australia's first Anglican Church, built in 1838 on 87 North Terrace Adelaide. South Australia's first governor Captain John Hindmarsh designed and built the church (Adelaideheritage.net.au, 2014). The features of the Victorian/Gothic style are all displayed in Holy Trinity Church as seen in figure 1 and 2.

S2 Substantiation of key findings. Sources are acknowledged in-text.

S1 Considered synthesis of the knowledge evident in the explanation of the architectural style with reference to the photos.

Current Church Architecture in Australia

The modern style of churches seen today came with the modernist movement, which began in the 20th century. According the David Kilpatrick of Kilpatrick Architecture, architects were "breaking away from the hierarchical structure" (2014) after Queen Victoria's death. This new development was based on experimenting with new building techniques and materials that were quite revolutionary at the time (Richard and David Kilpatrick, 2014).

Modernist Movement

Features of the modernist movement that categorises the style are natural face of brickwork and stone walls, plinths, concrete frames, striped windows, porches and negative elements, steel structures, horizontal elements and curtain glass walls.
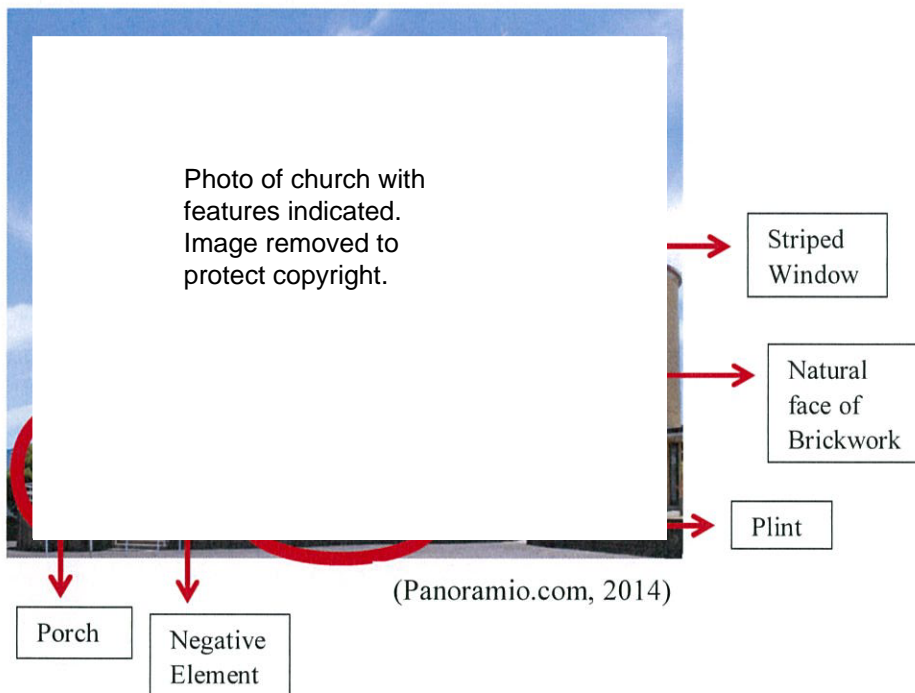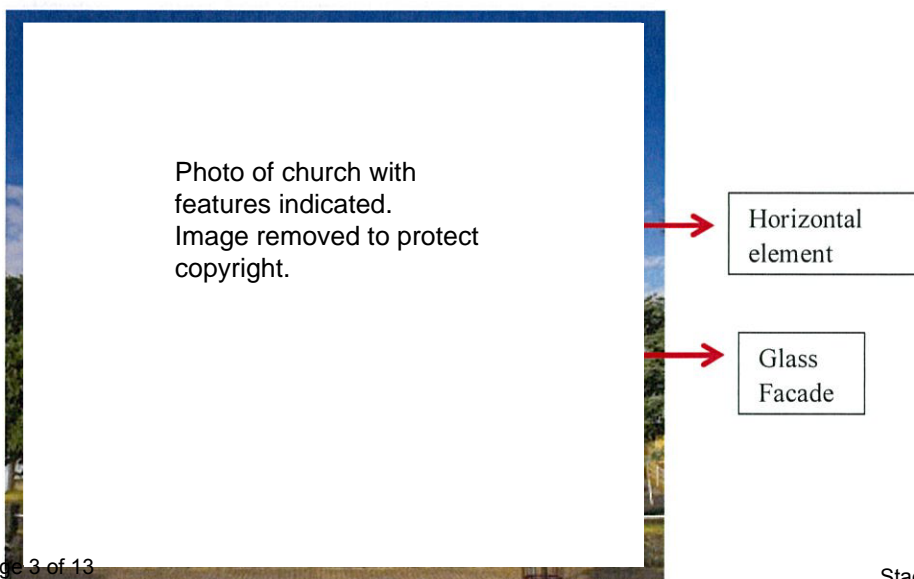
Figure 3

Photo of church with features indicated. Image removed to protect copyright.

Striped Window

Natural face of Brickwork

Plint

(Panoramio.com, 2014)

Porch

Negative Element

Figure 4

Photo of church with features indicated. Image removed to protect copyright.

Horizontal element

Glass Facade

(Panoramio.com, 2014)

St Alphonsus Millicent Church

St Alphonsus Millicent Church, was designed by New South Wales born architect Cecil Williams Peters (Nsg.com, 2014) in 1966. The church is located on George Street, in small country town Millicent. It was built in the modernist movement style and the features of this style are displayed in St Alphonsus Church, as seen in figures 3 and 4.

Comparisons between current and past Church Architectural Styles

Similarities

When designing a church, certain features are commonly used across the board. This creates normality and upholds tradition, linking churches across the globe and allowing them to be recognised by these features.

For example, not only architecture but also graphic design and photography follow a certain design principle that the features/objects are to be arranged or grouped in odd numbers. This is more aesthetically pleasing, memorable and effective than even-numbered pairings (Cecilia Walker Design, 2011). According to architects Richard and David Kilpatrick (2014), two elements compete with each other, whereas three create a central piece and therefore more pleasing for onlookers. As seen in Figure 5, St Alphonsus front view, the stain glass windows are divided into seven sections by white panelling. This draws the eyes to the middle section, creating a central focal point for onlookers. Figure 6, Holy Trinity front view depicts the same technique of using odd numbers. As seen in the image, the church tower has been moved forward, revealing the rest of the building on either side, creating three elements. It is again used when pairing the windows, as all windows seen on the church façade come in odd numbers.

Photo of church with features indicated in text. Image removed to protect copyright.
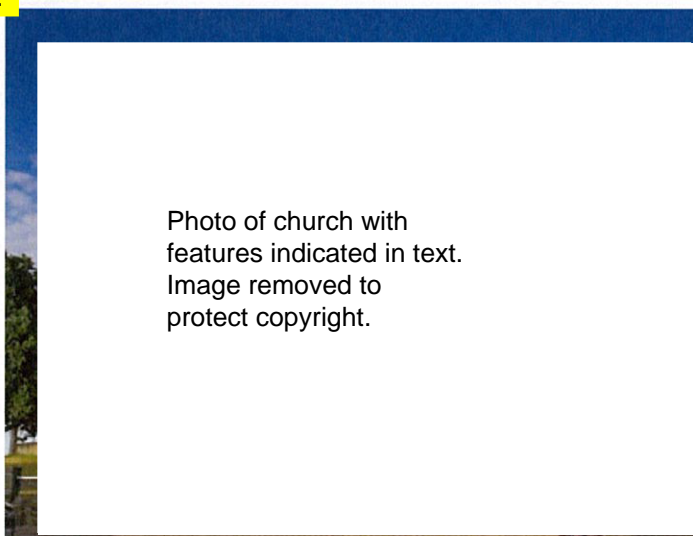
Figure 5   (Panoramio.com, 2014)

Photo of church with features indicated in text. Image removed to protect copyright.

Figure 6

(Ross, 2010)

Photo of church with features indicated in text. Image removed to protect copyright.
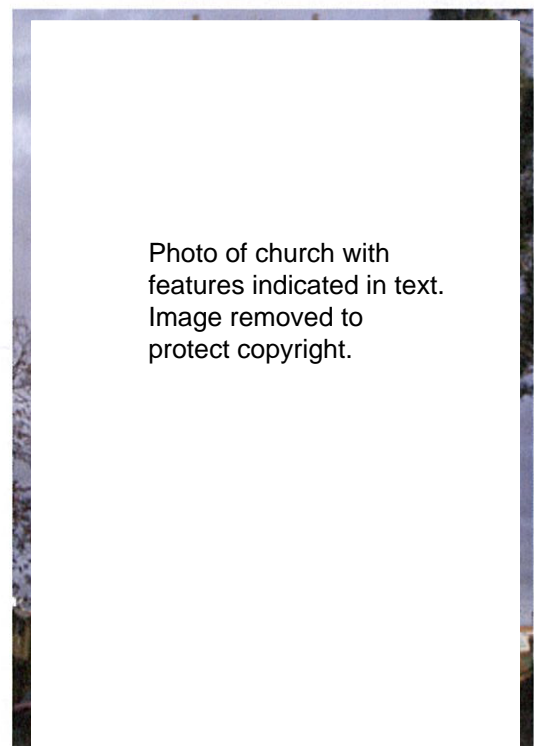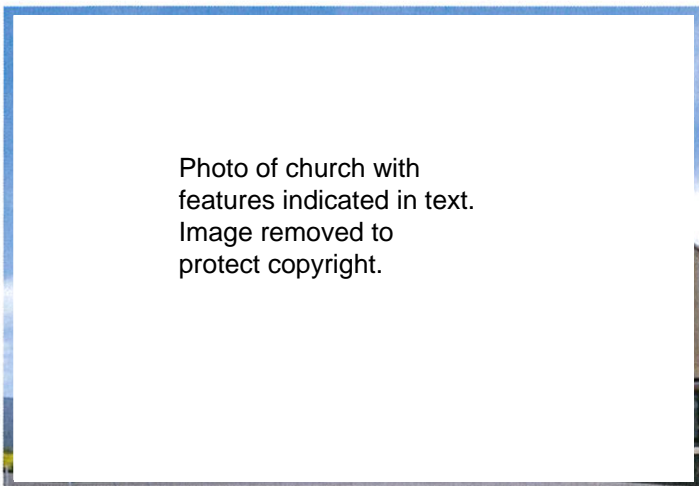
Figure 7

(Panoramio.com, 2014)

Photo of church with features indicated in text. Image removed to protect copyright.
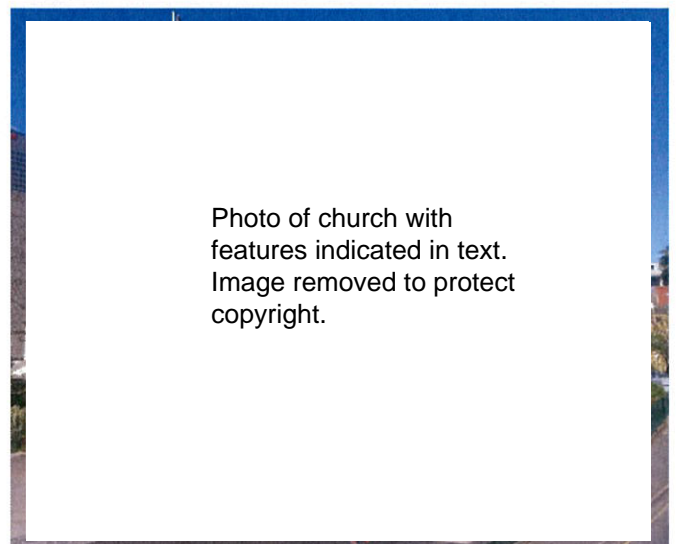
Figure 8

(Adelaidebyphoto.blogspot.com.au, 2011)

This design principle when used in churches can be linked back to the Holy Trinity, which states that as humans we live in a three-dimensional world, being that all physical objects are made of a height, weight and depth. However, God lives without these limitations and therefore is a lot more complex. "Hence, the term 'Tri' meaning three and 'Unity' meaning one, therefore, Tri+Unity=Trinity" (EveryStudent.com, 2014). This is a way of recognising what the Bible reveals to us about God, that God is three 'persons' who have the same essence of deity (EveryStudent.com, 2014). Churches such as St Alphonsus and Holy Trinity church depict this in their architecture by often having elements, such as the windows, paired in threes.

One feature that is seen not only in Holy Trinity Church and St Alphonsus Church but all Catholic churches around the globe, is the cross. Sometimes seen on top of a spire, on the exterior of the building or as seen in St Alphonsus, hidden within the architectural design, a cross is always present. St Alphonsus uses the white paneling within the glass to cleverly incorporate a cross, as seen in figure 9, highlighted in red and also on top of the spire, which can also be seen in Holy Trinity Church. No matter the positioning of the cross, it is one of the most important features of a church as it "symobilises the religion of Christianity" (Religionfacts.com, 2014) and "memorialises Christ's death" (Religionfacts.com, 2014). Therefore, having a cross is a significant feature that identifies churches and this will never change.
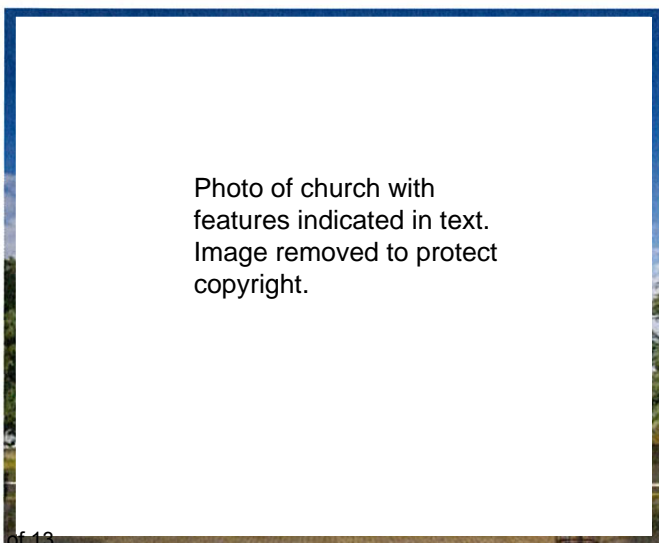
Photo of church with features indicated in text. Image removed to protect copyright.

Figure 9

(Panoramio.com, 2014)

Differences

While there are consistent norms across churches, not every church will have these features, depending on the period/architectural style they were built in.

For example, churches no longer need to be built to amplify sound, as the modern technology of microphones, amplifiers and speakers makes this no longer necessary. Churches may still be built with acoustics in mind for choirs and echoes etc. However, their concerns are different to what they were in the past. Churches have always been tall in order to move sound, so that everybody in the church can hear the priest, the organ and the choir or any other instrument used during mass. According to architects Richard and David Kilpatrick (2014), in the old churches, the reverberation time from the front to the back of the church was 4-5 seconds. They went on to describe that the height of modern churches has been lowered because the sound the high rooves generated can be imitated with modern technology. This has been done to avoid the cost of building, however, technology costs may balance out these savings. The argument is that these technologies would be purchased anyway, regardless of the acoustics of a building.

Architecture also changed due to reforms in the way churchgoers practice mass. For example, Vatican II decreed that priests should no longer face away from the congregation towards the tabernacle but should stand behind the alter and face towards the congregation (Schuler, 1994). With this, the interior of old churches was drastically changed, allowing for the different way of worship to be reflected in the church architecture (Richard and David Kilpatrick, 2014). Colleen O'Toole (2014), from Peterborough, who remembers the way mass was practiced before priests faced the congregation, spoke of how altars were pulled forward, tabernacles were often moved from being built into the altar to behind the altar on the side of the church. Another change was that that the communion rails at the front of the church seating were removed, as parishioners no longer kneeled to receive communion but walked towards the priest up the centre of the church (O'Toole, 2014). This internal architecture of the church was changed due to the changing nature of how mass was practiced. Therefore, this internal architecture was implemented in any new churches built, include St Alphonsus, Millicent.

Another architectural change that can be seen between St Alphonsus and Holy Trinity Church is the difference in windows, both in style and numbers. Holy Trinity Church features punched windows, receding into the building, whereas St Alphonsus has striped windows. Also St Alphonsus has an abundance of windows in comparison to Holy Trinity, this is due to the modernist movement of the time, which featured curtain walls and glass facades (Richard and David Kilpatrick, 2014). Heating and cooling was a main influence of this modern movement, as well as architects increasingly working to "bring environmental factors into the interior of a building" (Nsg.com, 2014) and therefore maximising natural sunlight. Glass facades would create a very hot environment in Summer and a very cool environment in Winter. However, due to modern technology, this was able to be controlled by air conditioners and heaters. In the earlier times of Holy Trinity church, this technology was not available and therefore glass facades were not a practical choice, whereas, stone allowed for

greater insulation. For this reason, the aspects of Holy Trinity Church and St Alphonsus vary greatly, as seen by the difference in glass and stone structures.

The frame structure also differed from St Alphonsus and Holy Trinity Church. This again was due to modern developments and knowledge. Holy Trinity Church was built from a timber structure and St Alphonsus a steel structure. However, because steel was not mass produced until "1855" (Inventors.about.com, 2014) it was not a practical option for the structure of Holy Trinity Church. Whereas at the time of St Alphonsus church, although it was expensive, steel provided a much higher quality and removed the worry of termites eating away at the support structure (Kithomesquotes.com.au, 2014). Therefore, the structures changed with modern developments to be the most practical at the time the church was built.

The feature of clocks is not always present in modern churches, whilst most early churches built in the Victorian/Gothic style featured a large clock. The reason for this was that these churches were usually in the heart of a village or town and acted as a natural place of congregation. According Brynn Hodgson who wrote the article "Why do churches have Clocks?" the mechanical clock, however, also had a religious link, as in early times it would indicate prayer times throughout the day and night (Hodgson, 2014). Conversely, according to David Kilpatrick of Kilpatrick architecture, clocks were a civil aspect of the church rather than religious (Kilpatrick, 2014). Similar to the other architectural differences between the two churches, this was also due to modern developments such as wall clocks and watches and for these reasons, Holy Trinity Church features a clock and St Alphonsus does not.

Conclusion

As a result of research, it can be concluded that there have been more changes throughout the architecture of churches rather than constant features. These changes in architecture from early churches, such as Holy Trinity Church, to more modern churches, such as St Alphonsus Millicent Church, were due to developments of knowledge, technology and change of worship. For example, as stated, height of churches, movement of the altar, the use of glass as a structural element, materials used for support structures and the incorporation of clocks. However, there are some features that have remained constant throughout churches, such as the cross, due to the tradition and symbolism they hold within the religion.

Word count: 1817

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S2 Thorough substantiation of ideas. Bibliography is linked to footnotes and supports research processes and ideas. "Works Cited" indicated those sources referred to in text.

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B+
S1 Ideas and knowledge are applied to resolving the research Question. Considered and thoughtful reporting of information. Application of knowledge and skills is evident in the comparison of the two churches and in the use of the specific information about design principles as applied to the specific churches and then to the general statement about all churches.
S2 Key findings are thoroughly substantiated through in-text referencing and bibliography. Quotations and ideas are acknowledged appropriately. All photos are sourced and acknowledged, and referred to within the text to support assertions.
S3 Mostly clear and coherent expression of ideas. Use of photos enhance the clarity of the information and concepts presented. Correct use of grammatical conventions.

Performance Standards for Stage 2 Research Project B

	Planning	*Development*	*Synthesis*	*Evaluation*
		Assessment Type 1: Folio	Assessment Type 2: Research Outcome	
				Assessment Type 3: Evaluation
A	P1 Thorough consideration and refinement of a research question. P2 Thorough planning of research processes that are highly appropriate to the research question.	*D1 Thorough and highly resourceful development of the research.* *D2 In-depth analysis of information and exploration of ideas to develop the research.* *D3 Highly effective development of knowledge and skills specific to the research question.* *D4 Thorough and informed understanding and development of one or more capabilities.*	S1 Insightful synthesis of knowledge, skills, and ideas to produce a resolution to the research question. ==S2 Insightful and thorough substantiation of key findings relevant to the research outcome.== S3 Clear and coherent expression of ideas.	E1 Insightful evaluation of the research processes used, specific to the research question. E2 Critical evaluation of decisions made in response to challenges and/or opportunities specific to the research processes used. E3 Insightful evaluation of the quality of the research outcome
B	P1 Consideration and some refinement of a research question. P2 Considered planning of research processes that are appropriate to the research question.	D1 Considered and mostly resourceful development of the research. D2 Some complexity in analysis of information and exploration of ideas to develop the research. D3 Effective development of knowledge and skills specific to the research question. D4 Informed understanding and development of one or more capabilities.	==S1 Considered synthesis of knowledge, skills, and ideas to produce a resolution to the research question.== S2 Substantiation of most key findings relevant to the research outcome. ==S3 Mostly clear and coherent expression of ideas.==	E1 Considered evaluation of the research processes used, specific to the research question. E2 Some complexity in evaluation of decisions made in response to challenges and/or opportunities specific to the research processes used. E3 Considered evaluation of the quality of the research outcome
C	P1 Some consideration of a research question, but little evidence of refinement. P2 Satisfactory planning of research processes that are appropriate to the research question.	D1 Satisfactory development of the research. D2 Satisfactory analysis of information and exploration of ideas to develop the research. D3 Satisfactory development of knowledge and skills specific to the research question. D4 Satisfactory understanding and development of one or more capabilities.	S1 Satisfactory synthesis of knowledge, skills, and ideas to produce a resolution to the research question. S2 Substantiation of some key findings relevant to the research outcome. S3 Generally clear expression of ideas.	E1 Recount with some evaluation of the research processes used. E2 Some evaluation, with mostly description of decisions made in response to challenges and/or opportunities specific to the research processes used. E3 Satisfactory evaluation of the quality of the research outcome
D	P1 Basic consideration and identification of a broad research question. P2 Partial planning of research processes that may be appropriate to the research question.	D1 Development of some aspects of the research. D2 Collection rather than analysis of information, with some superficial description of an idea to develop the research. D3 Superficial development of some knowledge and skills specific to the research question. D4 Basic understanding and development of one or more capabilities	S1 Basic use of information and ideas to produce a resolution to the research question. S2 Basic explanation of ideas related to the research outcome. S3 Basic expression of ideas.	E1 Superficial description of the research processes used. E2 Basic description of decisions made in response to challenges and/or opportunities specific to the research processes used. E3 Superficial evaluation of the quality of the research outcome
E	P1 Attempted consideration and identification of an area for research. P2 Attempted planning of an aspect of the research process.	D1 Attempted development of an aspect of the research. D2 Attempted collection of basic information, with some partial description of an idea. D3 Attempted development of one or more skills that may be related to the research question. D4 Attempted understanding and development of one or more capabilities.	S1 Attempted use of an idea to produce a resolution to the research question. S2 Limited explanation of an idea or an aspect of the research outcome. S3 Attempted expression of ideas.	E1 Attempted description of the research process used. E2 Attempted description of decisions made in response to a challenge and/or opportunity specific to the research processes used. E3 Attempted evaluation of the quality of the research outcome