Supporting Students with English as a Second Language to Succeed in Pre-Registration Nursing Programmes: A Realist Review

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Abstract

Background: Nurses who have English as a second language add to a diverse nursing workforce and match the population demographic that now resides in many Western countries. *t is often the case that catering to the requirements of nursing students who speak English as a second language (ESL) is not available.*. ESL students are expected to keep up with the nursing curriculum and succeed, yet often more understanding and support from education providers to make their journey more successful is needed. The aim of this realist evaluation is threefold: first, to identify teaching and learning programs that provide optimal support for the successful completion of a pre-registration nursing program. Second, to propose changes to the program that will enhance the likelihood of successful completion. Last, to make recommendations for modifying programs to cultivate practice-ready ESL nurses who can seamlessly transition from the pre-registration phase to the role of a registered nurse. **Method:** A systematic literature review was undertaken using inclusion and exclusion criteria to identify research articles to answer the research aims. These articles were screened using the mixed methods assessment tool to check for validity, Braun and Clarke's thematic analysis was used to develop themes whilst simultaneously using Pawson's methodology for realist synthesis to identify critical context, mechanism, and outcome (CMO) configurations. These configurations are then utilised to develop a midrange theory. **Findings:** Ten research articles were identified and three broad CMO configurations; communication complexity, cultural development, and self-efficacy, were identified, and a midrange theory was created highlighting key factors to best support ESL students to succeed in their nursing studies. All factors are interconnected and related for success, these include enhancing English skill development, acknowledging the symbiotic relationship between clinical facilitators and ESL students, using the Cummins Language theory and transcultural teaching models to help guide linguistic and culturally safe support. Also significant is the importance of providing leadership opportunities for ESL students and embracing whanaungatanga (close connection between people), which will ultimately enhance self-efficacy for both students and clinical facilitators. **Conclusion:** Many vital factors can be used to assist nursing students with English as a second language to succeed. Offering professional development days to clinical educators and ESL students to share these factors and

then implementing these practices into daily business with ESL is recommended. If these strategies can be implemented into nursing programmes, success for ESL undergraduate nursing programmes can be enhanced.

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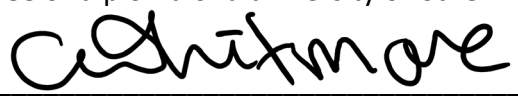
Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.



Signature

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Chapter 1 Introduction

Increasing numbers of domestic and international students who speak English as a second language (ESL), are enrolling in tertiary academic institutions that provide pre-registration nursing programmes in English-speaking countries (Glew, 2013; Johannessen et al., 2022). This increases the pressure on clinical facilitators to meet ESL students' learning and cultural needs. Competency in the English language skills of ESL students remains a concern for students and academic institutions, as students require high-level English skills to engage in academic studies, gain nursing knowledge, and develop critical thinking skills to meet the Nursing Council of New Zealand (NCNZ) competencies. This chapter sets the scene of how the volume of ESL students has significantly increased, by exploring the current population of Aotearoa New Zealand (NZ), beginning with Māori, who are tangata whenua (people of the land). Then, current-day migration trends and backgrounds will be explored. This chapter then investigates the process of migrant employment in NZ, specifically looking at nursing trends. This passage also explores definitions of ESL terms and rationalises why there is a need to identify and explore the barriers for ESL migrants working towards nursing registration.

1.1 Tangata whenua

In exploring migration trends to New Zealand it is important to acknowledge Māori as the Indigenous people of NZ who migrated to NZ between 1200 and 1300AD (Anderson, 2016a). In 1642, Abel Tasman, from the Netherlands, became the first European explorer to reach NZ, followed by Englishman, Captain James Cook, who surveyed and mapped the country (Moon, 2019; Skilbeck, 2022). These events marked the beginning of significant migration to NZ (Callister et al., 2011). However, European colonisation has had devastating effects on the Indigenous Māori population (Mutu, 2020; Stewart et al., 2022). The arrival of Europeans in the late 18th century introduced diseases such as influenza, measles, and tuberculosis, to which Māori had no natural immunity (Dey, 2023; Dubov, 2021). These diseases spread rapidly among Māori, leading to widespread illness and death, because (Chapple, 2018; Dey, 2023) their risk of contracting these diseases, was higher due to their lack of previous exposure (Reweti et al., 2023). The introduction of these diseases had a profound and

lasting impact on Māori, drastically reducing their population and changing the course of their history (Dubov, 2021). The effects of European colonisation were far-reaching and profoundly impacted NZ's colonised regions (Beattie, 2008; Birchall, 2021). One of the most significant effects was the exploitation of natural resources, such as minerals, timber, and agricultural products, which were extracted for the benefit of the colonising powers (McAloon, 2020). This led to economic inequality and the impoverishment of Māori populations (Dell et al., 2022). Additionally, European colonisation brought about significant cultural changes as colonisers imposed their language, religion, and customs on the indigenous Māori (Berryman et al., 2022; Mutu, 2024). This resulted in the erosion of Māori culture and the loss of traditional knowledge and practices (Kepa et al., 2021). The colonisation of NZ also resulted in the displacement of Māori from their ancestral lands and the loss of their traditional political systems (Thom, 2021).

These colonial governments often marginalised and oppressed the Indigenous Māori population, leading to political unrest and resistance movements (O'Sullivan, 2021). This was despite the signing of Te Tiriti o Waitangi in 1840, which aimed to safeguard Māori rights and foster a collaborative alliance between the British Crown and Māori chiefs (O'Sullivan, 2021). However, the British in practice often disregarded Te Tiriti o Waitangi, leading to further grievances and conflicts (Buick, 2020).

In NZ today, it is crucial to fulfil the responsibilities outlined in Te Tiriti o Waitangi. Meeting these obligations is considered vital in establishing a genuine partnership and fostering reconciliation between the Crown and Māori (O'Sullivan & O'Sullivan, 2021). Furthermore, it is of utmost importance to promote inclusivity and fairness and to achieve greater equity for the Māori community (Minister of Health, 2024a; Minister of Social Development, 2022). It is also crucial for nurses to understand Te Tiriti o Waitangi so they can effectively advocate for their patients and address any disparities or inequities in healthcare (Disch, 2020; Sheridan & Geia, 2020). Nursing students need to recognise that the NCNZ competencies align with Te Tiriti o Waitangi, as these competencies prioritise cultural safety, respectful partnerships, and the promotion of health equity (NCNZ, 2023a). Similarly, hospital policies that are developed in accordance with Te Tiriti o Waitangi principles will support the provision of culturally

competent care and contribute to positive patient experiences and health outcomes (Minister of Health, 2020).

1.2 History of migration

Colonisation meant that by the mid-1880s, Europeans were the dominant population in NZ (Beattie, 2022). The next significant wave of migration was post-World War II, with increases in Pacific populations, and this continued until the late 1960s and early 1970s (Petrou & Connell, 2022; Spoonley, 2020). Throughout this period, few people from Asia migrated to NZ, although the Asian population experienced significant growth during the 1980s and 1990s (Wang, 2023).

NZ's population has increased with the influx of migrants. The NZ Department of Labour and Immigration reports that many factors influence people's decision to migrate, with some having no other option. For example, people from war-affected countries seeking political asylum, have contributed to the rising number of refugees in New Zealand. Ongoing conflicts, civil unrest, and oppressive regimes push people to leave their homes for safety and a brighter future (Kelley, 2022).

At the second international symposium titled *The Global Migration Phenomenon*, Telsaç and Telsaç (2022) stated that the main reasons for migration relate to the region or country the person is migrating from. These reasons can include economic factors, such as poverty, political reasons such as war, persecution, and restriction of personal freedoms. There may also be demographic factors such as high fertility rates, social factors such as a desire to be with relatives who have already migrated, and natural elements such as weather changes related to climatic conditions (Telsaç & Telsaç, 2022). In summary, the motivation or inspiration to "push" someone to leave their country of residence or home country, can be for various reasons, including lack of opportunity, persecution, natural disasters, or a desire for adventure (Segal et al., 2010). Host countries such as NZ offer several "pull factors" and provide migrants with increased opportunities, freedom and safety, family reunification, and adventure (Niraula & Triandafyllidou, 2022)

One pull factor that brings migrants to NZ is social safety (New Zealand Immigration, 2023), and migrants with safety as their number one reason for moving to NZ

predominantly come from South Africa. Another reason people consider relocating is the ongoing issues with state infrastructure, which has destabilised government, economic, and social systems (Immigration, 2023; Zurn & Dumont, 2008). One-third of all NZ migrants stated that their primary purpose for immigrating was to be closer to family, a spouse, or friends (New Zealand Immigration, 2023).

1.3 Current migration patterns

To understand who the people are that make up contemporary NZ, it is important to investigate the ethnic breakdown of the cultures in NZ and where people reside. The level 1 ethnicity code for NZ in 2018 shows that Europeans constitute over half the population (57.6%), followed by Māori (16.5%), Asian (15.1%), Pacific Peoples (8.1%), Middle Eastern/Latin American/African (1.5%), and Other (1.2%) (StatsNZ, 2018a).

NZ's migration patterns have evolved significantly since the implementation of an immigration policy in 1986 (Alimi et al., 2022; Liu, 2017). This policy meant that migrants were reviewed on their abilities and achievements without bias towards race, nationality, or ethnicity. Before NZ introduced this immigration policy, the dominant country of origin for migrants was the United Kingdom (Basu, 2022; Burke, 1986).

Although the migrant population of NZ currently comes from around the world, there has been a rise in Asian migrants entering NZ, especially after the 1986 immigration policy and the amended 1991 immigration policy when the work visa point system was introduced (Liu, 2017). Both policies were pivotal for Asian migration to NZ and caused a shift, with an increased number of Asian citizens. Asians are now the third most prominent population in NZ, and it is predicted that the Asian population will outnumber Māori by 2038 (Billington, 2015; StatsNZ, 2017).

When exploring where migrants live in NZ, many cultures domicile in the major cities, with the highest number in Auckland, followed by Waikato (Hamilton), Wellington, and Christchurch (StatsNZ, 2018). Auckland has the largest population of 1,673,000 people and offers the most diversity, with the 2018 census reporting that 47.1% identified with multiple ethnicities (StatsNZ, 2018). Table 1 presents Auckland's ethnic breakdown according to the level 1 ethnicity from the 2018 census.

Table 1 Ethnicity breakdown for Auckland (StatsNZ 2018b)

Ethnicity	*N*	%
European	895,055	56.5
Asian	471,786	28.2
Pacific Peoples	259,315	15.5
Māori	192,295	11.5
Middle Eastern/Latin American/African	38,479	2.3
Other	18,403	1.1
Total	*1,673,000	*115.1

Note. *When a person reported more than one ethnic group, they were counted in each applicable group.

The official languages spoken in NZ are te reo Māori, English, and NZ Sign Language. Almost the entire NZ population speaks English as their dominant language. However, the number of people speaking te reo Māori is increasing, with the Māori language being recognised as an official language since 1987, and the 2018 census showed that 4 % of NZ's population can converse in Māori. NZ Sign Language became an official language on April 10, 2006 (StatsNZ, 2020).

The number of non-English-speaking migrants in NZ or Australia is not reported (Australian Bureau of Statistics, 2021; StatsNZ, 2022). However, NZ migrants come from diverse countries and language backgrounds, resulting in a substantial variety of languages (Chan, 2020; Simon-Kumar, 2020; Watts & Trlin, 2000). Many migrants, especially those who have lived in NZ or Australia for some time, experience various factors contributing to their language development (Cameron, 2021; Yan, 2020). Aspects contributing to the faster development of English for migrants, include being younger, having higher education, being motivated, having a multilingual or similar language background to English, and being in immersive environments (Getie, 2020; Phinney et al., 2000).

The following terms are used interchangeably when describing those who migrate to English-speaking countries and who do not speak English as their main language: English as a second language, English as an additional language, English language learners, non-native speakers of English, and English as a foreign language. People may also be referred to as culturally and linguistically diverse (CLD) learners , which is a more holistic definition that includes bilingual, second language, language minority

learners, those with limited English proficiency, and even mainstream dialect speakers. Essentially, CLD learners are synonymous with English language learners (Education Review Office, 2018).

In this research, the term ESL describes those who do not speak English as their dominant language, including bilingual and multilingual students.

1.4 Working in New Zealand

To legally work in NZ, immigrants must either be a NZ or Australian citizen or hold a work visa. Immigrants must apply to Immigration New Zealand for a work visa which is assessed on a points system. To obtain a visa, people must score at least 180 points based on factors such as qualifications, profession, and income. Migrants can gain extra points towards their work visa for family members who already reside in NZ (Te Kawanatangao o Aotearoa|New Zealand Government, 2022).

Once in NZ, the prospects for migrant workers depend on their qualifications. Migrants without formal education or professional experience could find employment in manufacturing, agriculture, or construction sectors. However, healthcare, health technology, information technology, agriculture and forestry, construction, education, tourism, and hospitality are among the high-demand sectors in NZ's workforce (Te Kawanatangao o Aotearoa|New Zealand Government, 2022).

Healthcare is attractive to potential migrants. Workforce statistics from the last quarter (August 2023– November 2023) revealed that health and social assistance comprise most of the workforce, with 250,453 people employed, followed by manufacturing (224,296) and education and training (200,926). (Te Kawanatangao o Aotearoa|New Zealand Government, 2022).

Nursing accounts for more than half of the regulated health workforce in NZ, making it the largest healthcare subspecialty (New Zealand Nurses Organisation [NZNO], 2018). However, there are major nursing workforce deficits in NZ, with the New Zealand Nurses Organisation stating that 4,000 additional nurses are needed immediately, and it is estimated that the demand will continue with projections of 700 nurses leaving the profession annually from 2024, due to retirement alone (NZNO, 2023). The number of NZ registered nurses with annual practising certificates was 74,497 as of September

30, 2023. This represents a 12% increase or 8,002 more nurses than the 66,495 nurses in 2022 (NCNZ, 2023). In December 2012, 723 newly graduated nurses secured jobs and enrolled in Nursing Entry to Practice or New Entry to Specialist Practice programmes (Minister of Health, 2024b). In 2019, there were 1,100 new graduate nurses; however, this is not enough to meet NZ's demand for registered nurses (Minister of Health, 2024b).

The shortage of nursing staff in NZ is being addressed through recruitment efforts from abroad (Chalmers, 2020; North, 2011; Pressley et al., 2022). International qualified nurse recruitment started in 2010 to address nursing shortages in NZ (Clendon & Walker, 2012). The number of internationally qualified nurses on the NZ nursing register has increased each year (NCNZ, 2013, 2020) and from 2010–2021, the number of internationally qualified nurses increased to 27%, which exceeded projections for 2025. Currently, internationally qualified nurses comprise 40.7% of the New Zealand nursing workforce with an annual practising certificate (NCNZ, 2023).

Nurses who are registered outside NZ and want to work as nurses in NZ, must apply to the Nursing Council of New Zealand for registration.(NCNZ, 2018). To apply for registration with the NCNZ, registered nurses from other countries must meet certain requirements. These requirements typically include: completing an application form, providing proof of their nursing qualifications and training, submitting a criminal record check, and supplying evidence of their proficiency in the English language.

Additionally, some nurses may need to undertake a competency assessment to ensure their skills and knowledge align with the NZ nursing standards (NCNZ, 2018). Once the application is reviewed and approved by the NCNZ, nurses can legally work as registered nurses in NZ. As of December 4, 2023, all nurses who apply for NZ registration must pass an online theoretical exam, complete a 2-day preparation course, and undergo an objective structured clinical examination (NCNZ, 2018).

Investing in nursing is crucial for the health and economy of any nation (Nickitas & Ferguson, 2017). The NZNO, College of Nurses Aotearoa NZ, and the Nurses Society of New Zealand, all advocate for and raise awareness of nursing's significant contribution to improving health outcomes in NZ. Investment in healthcare ensures that care is of high quality, safe, and accessible (Valls Martínez et al., 2021). By increasing staff,

improving the skill mix, providing training and improving skills, better patient outcomes can be achieved, including reducing mortality rates and increasing patient satisfaction. Governments must recognise that healthcare spending is an investment rather than an economic burden (Raghupathi & Raghupathi, 2020).

1.5 Motivations for registered nurses to migrate.

To tackle the nurse shortage in NZ, the government and NCNZ have collaborated. Their approach involves actively recruiting international nurses by enticing them with residency visas and simplified registration processes (Hughes, 2020; Tsujita et al., 2023). Nurses from other countries migrate for different reasons, which may be influenced by their personal desires, seeking professional advancement, or a blend of both (Pressley et al., 2022). Among the personal and professional reasons is the desire to acquire specialised nursing skills and to be exposed to advanced healthcare systems with state-of-the-art technologies, which can enhance their qualifications and create opportunities for furthering their nursing careers (North, 2011; Olorunfemi et al., 2020). Low wages received by nurses in impoverished countries, often motivate migration as they aim to improve the quality of life for their families and children, in terms of finances and social aspects (Konlan et al., 2023). Meanwhile, nurses who move from affluent countries often do so to satisfy their urge to travel and discover alternative lifestyles (Pressley et al., 2022).

1.6 Academic institutions' pre-registration nursing programmes

Besides recruiting nurses from overseas, NZ relies on NZ academic institutions' pre-registration nursing programmes, to contribute to the pipeline of future nurses, bridge the workforce deficit and bolster the nursing workforce. In July 2023, the New Zealand Government made a significant effort to strengthen the nursing workforce by adding 830 students to nursing training programmes (New Zealand Government, 2023). Experts expect this initiative will lead to a 10% increase in the nursing workforce in NZ (New Zealand Grovement).

With the trends in migration to NZ, many students entering nursing programmes will have culturally diverse backgrounds and will be ESL (Dudas, 2018; Kachia, 2021; Mulready-Shick, 2013), and nursing schools must advance the nursing profession by

cultivating this diverse workforce (Iordan et al., 2020). It is important for those domiciled in NZ to receive culturally competent care; therefore, training nurses who are also representative of NZ's population is vital. However, there are some obstacles that ESL students face, and they may require additional support to navigate their studies and be practice ready. All nursing schools that enrol ESL students face the challenge of enrolling and retaining these valuable students. ESL students need skills to navigate the enrolment process and achieve academic standards. Academic Nursing institutions must find ways to strengthen processes to recruit and retain culturally diverse nursing programmes (Metzger et al., 2020; Stanley et al., 2007).

ESL nurses are an important part of the nursing workforce, and their success in obtaining nursing registration is crucial. Therefore, this realist review aims to investigate the contexts and strategies that help ESL students succeed in pre-registration nursing programmes.

Chapter 1 introduced NZ's unique migration journey, showcased the diversity of people currently living in Auckland and NZ and set the scene for the significant number of people for whom English is a second language. Chapter 1 also presented NZ's unique migration history and highlighted the diverse population in the country and its major city, Auckland. In addition, this chapter delved into the urgent need for foreign nurse recruitment and the importance of nursing schools in remedying employment inequalities. The number of individuals joining NZ's nursing workforce was illustrated. Finally, this chapter set the stage to focus on the contexts and strategies that help ESL students succeed in pre-registration nursing programmes.

Chapter 2 explores the requirements and expectations for nurses undertaking pre-registration education to become NZ registered nurses and reviews the challenges that ESL students with language barriers face, with their academic studies and communication. This chapter also defines the research aim and research question.

Chapter 3 provides a rationale for using realistic synthesis and explains how it will be applied to the review. In addition, the chapter will discuss the literature search strategies used and explain how the data was collected and analysed.

Chapter 4 presents the findings of the realist review and delivers these through the context-mechanism-outcome configuration of realist synthesis theory. This chapter presents outcomes for the three identified themes.

Chapter 5 Pawson's generative causation theory is used as the basis for a new framework. This chapter discusses this framework and the key concepts of the framework, and how this model can be applied to undergraduate nursing schools education to enhance ESL students success.

Chapter 2 Literature Review

This chapter will discuss NZ's current nursing workforce situation in more detail and explore how ESL nurses help develop a diverse nursing population. This dissertation explores the specific language barriers ESL nursing students face during their academic studies and when communicating. Potential strategies or interventions that could improve the experience and success of ESL nursing students are then proposed. This realist synthesis addresses the gap in knowledge regarding the unique challenges ESL nursing students face and provides evidence-based recommendations for educators, institutions, and policymakers to support these students effectively. By understanding the specific language barriers and their impact on academic studies and communication, this research aims to contribute to the development of more inclusive and effective nursing education programmes.

2.1 Development of Registered Nursing workforce

As previously noted, there is a worldwide shortage of registered nurses affecting industrialised countries, including NZ (Bludau, 2021). According to the NZNO, there are currently at least 4,000 registered nurses required in NZ's nursing workforce (NZNO, 2024). Adding to nursing vacancies is the continued high turnover of registered nurses, with the nursing profession ageing and retiring (Haddad et al., 2018), and registered nurses reviewing their options abroad and migrating for increased wages and conditions (Almansour et al., 2022). Many NZ nurses take advantage of the trans-Tasman agreement with Australia, which offers nurses financial rewards to fill their predicted 100,000 registered nurse shortfall by 2025 (Schuck, 2020).

Although nurses are leaving and thereby contributing to NZ's nursing deficit, NZ is actively recruiting nurses from overseas. In the past, NZ has relied on recruiting nurses from the United Kingdom to address the nursing shortage. In recent times, there has been a consistent rise in the recruitment of registered nurses (Pressley et al., 2022). Nursing schools are also pivotal in producing nurses who are vital to filling some of the nursing vacancies in NZ (Hunt et al., 2020; North, 2011). Tertiary academic institutions offering pre-registration programmes recruit culturally diverse students, including ESL students, who are valuable in contributing to the professional nursing workforce

(DeWitty & Byrd, 2020; Iordan et al., 2020). Globally, there has been an increase in the number of ESL nursing students in Western countries (Merry et al., 2021).

All nursing schools in New Zealand have programs accredited by the NCNZ (NZNO, 2022). In New Zealand, there are 6 universities and 14 schools belonging to Te Pūkenga (formerly Polytechnics), that offer undergraduate nursing programs (NCNZ, 2023a). Auckland University of Technology's nursing student enrolment is an example of ethnic diversity now seen in NZ nursing schools, as of February 2024, there were 1165 students enrolled, of these (35.4%) identified as Asian, followed by European (28.9%), Pakifika (19.9%), Māori (9.3 %), other students (5.6%), and unknown (less than 1%). The Graduate Entry to Master of Health Science is another preregistration program that ESL students can enrol in. Currently, six tertiary education facilities in New Zealand offer a graduate entry option (NCNZ, 2023a). Students with existing bachelor qualifications who meet grade entry criteria are eligible for these graduate entry master's programmes. Students must study full time for two years and enrol in level 8 and 9 courses to complete their programme. These programmes also attract students from many countries. Using Auckland University of Technology as an example again,: as of February 2024, there were 55 students enrolled in their graduate entry programme. The ethnicity breakdown showed that 70.9% identified as Asian, followed by European (12.7%), Pasifika (3.6%), and other (12.7%) (Arion, 2024). Although it is unknown if English is a second language from these statistics, this cross-sectional view of one large school in metropolitan Auckland shows great diversity and all nursing schools potentially have many students who have English as a second language. It is important to assess this in more detail to understand how ESL students learn this and then to work out ways to improve the learning experience for those who do during their nursing degree to ensure success.

To be eligible for the Bachelor of Nursing program or the master's program, students must have a minimum overall score of 6.5 in the International English Language Testing System (IELT's), or an equivalent English language proficiency test. However, despite these requirements, ESL students often face difficulties with the curriculum and participating in clinical practice (Olson, 2012). With academic institutions now recruiting nursing students from diverse cultures, including immigrants, refugees, and

international students, they need to develop strategies to help these students successfully complete their nursing programmes (Duerksen, 2013; Merry et al., 2021).

Academic programmes for pre-registration education aim to have students “practice ready” by the time they sit the nursing state final exams (Masso et al., 2022). This means that student nurses can transition to registered nurses safely and competently. Programmes also ensure that the clinical environment gains new graduates with high levels of knowledge and skills to deliver safe nursing care for patients. This extends to producing culturally competent nurses (Graf et al., 2020). To achieve this in NZ, nursing students must complete 1,100 clinical hours in hospital and community settings to meet the educational requirements set by the academic institutions and NCNZ for pre-registration nursing education (NCNZ, 2020). Nursing students must adhere to the relevant NZ legislation, which includes the Health Practitioners Competence Assurance Act 2003 and Children’s Act 2014, and be vetted by the NZ Police (NCNZ, 2022). Nursing students are expected to learn via the practice of self-directed learning during their programme (Alexander et al., 2002) which includes: theory, simulation, and clinical components, with students gaining their nursing knowledge through lectures, tutorials, online content, and self-directed learning activities (Koukourikos et al., 2021). Simulation teaching and learning is valuable and enables students to apply their theoretical knowledge to scenarios and situations they may encounter in the clinical environment (Landon-Hays et al., 2020). Students are assessed on their academic work through assignments and exams (Patelarou et al., 2020).

To deliver safe care and provide linguistically, ethically, and culturally appropriate nursing care, it is essential to have a diverse workforce (Gardner, 2005; Kamau et al., 2022; Yu et al., 2021). The significance of recruiting and retaining a culturally diverse nursing workforce in NZ, is that having culturally competent nurses is key to enhanced healthcare outcomes (Kamau et al., 2022). Nurses with different backgrounds help deliver culturally sensitive care and understand patient needs (Young & Guo, 2020). Additionally, a diverse nursing workforce can bring different perspectives and approaches to problem-solving, enhancing the quality of healthcare delivery (Brewster et al., 2022). Overall, recruiting and maintaining a culturally diverse nursing workforce is essential, to meet the healthcare system’s growing demands and improve healthcare

outcomes for diverse cultural population in New Zealand (Brewster et al., 2022; Young & Guo, 2020).

A culturally diverse healthcare system offers significant advantages, such as better health outcomes for people from different cultural backgrounds (Brewster et al., 2022; Kamau et al., 2022). Academic institutions with students from diverse cultures produce registered nurses who have gained unique understandings and insights into cultural beliefs and values (Cary.,2020). This experience equips them with the necessary knowledge and skills to provide culturally sensitive care to patients from different cultural backgrounds. In some cases, nurses may hold different beliefs from their patients and colleagues. By studying in a diverse environment, nurses develop essential skills to support people with different values in the clinical setting (Piggott & Cariaga-Lo, 2019).

Effective therapeutic conversations can be facilitated when patients can communicate with registered nurses who speak their native language. This enhances cultural competence, helps alleviate healthcare disparities, and improves health outcomes in diverse patient populations (Brottman et al., 2020; Chae et al., 2020; Green & Nze, 2017; Pandey et al., 2021). Studies show that patients have increased trust when treated by medical staff of the same ethnicity (Alsan et al., 2019; Chauhan et al., 2020). During the COVID-19 pandemic, engaging people for the vaccine, was more effective when the treatment was culturally appropriate (Palu et al., 2023; Schoch-Spana et al., 2021). Although there are many benefits to recruiting a diverse nursing workforce, there are also many barriers. Many immigrants need help adapting to their host countries (Taylor et al., 2021), which can lead to identity confusion, increased stress, poor health outcomes, and social and economic issues (Patelarou et al., 2020).

2.2 Problems/barriers

The next section of this literature review identifies some barriers that ESL students experience when living and studying in a new country where English is predominantly spoken.

2.2.1 Communication language difficulties

Those who speak English as a second language include migrants who have recently arrived in NZ (Buckingham, 2020; Smythe, 2020). However, students from diverse cultural backgrounds may struggle to engage with a Western-style education system. Research conducted by Brewer et al. (2023), supports this notion. Cultural differences in communication styles, learning approaches, and expectations can contribute to a lack of engagement and hinder academic progress.

ESL students often find themselves in situations where communication at home and in their community, is primarily conducted in their native language (Gajewski, 2022). This is because most ESL students come from homes where their parents or family members speak their native language fluently. Additionally, their local communities may have a strong presence of individuals who share the same cultural background and language. As a result, ESL students can have limited exposure to English outside of their school environment. This reliance on their native language for daily communication, can pose challenges when it comes to acquiring and practising English language skills, as it requires them to actively seek out opportunities to engage in English conversations and immerse themselves in English-speaking environments (John et al., 2021; Meenambal & Meenakshi, 2022). This can result in delays in gaining a full command of English (Nosirova, 2023; Tian & McCafferty, 2022). Research has shown that immigrant families often face challenges in achieving fluency in the English language, and it may take up to four generations for a significant shift to occur (Lanza & Curdt-Christiansen, 2018; Park, 2022; Purkarthofer, 2020; Tian & McCafferty, 2022). This highlights the need for continuous support for ESL immigrants throughout their nursing education.

Language barriers can hinder effective communication and understanding within healthcare settings, which is crucial for providing quality patient care (Claeys et al., 2023; Meuter et al., 2015; Pandey et al., 2021). By addressing language barriers, healthcare institutions can ensure that all nursing students, regardless of their immigrant background, have the language skills to excel in their profession and provide culturally competent care to diverse patient populations (Gerchow et al., 2021; Pandey et al., 2021).

Lack of command of English results in reduced engagement with a Western educational model, which usually demands a high level of understanding of English (Huang et al., 2022; Olson, 2012). Challenges with adapting to the teaching methods result in reduced engagement in educational activities and elements, due to a lack of comprehension and consolidation of nursing terminology (Choi, 2005; Davis et al., 2022). Cultural differences in communication styles, learning approaches, and expectations can contribute to a lack of engagement and hinder academic progress.

Language difficulty is ESL students' primary and most significant concern (Mulready-Shick, 2013). Cummins' model of language acquisition provides a framework for pre-registration nursing education programmes to acknowledge ESL language difficulties and implement strategies (Cummings et al., 2021). This model highlights that ESL nursing students learn the English language for the purpose of social engagement and academic learning (Cummins, 2008). In Cummins' language model, ESL students develop two levels of English proficiency: basic interpersonal communication skills (BICS) and cognitive academic language proficiency (CALP) (Cummins, 2021).

When ESL students develop the skill of social conversational English through face-to-face interactions, they have gained the expertise of BICS (Cummins, 2013). Developing conversational skills is accelerated for ESL students when they engage with peers and colleagues (Cummins, 2021). On average, it takes 2 years for ESL students to become proficient in basic English (Cummins, 2013)

CALP can be described as the cognitive abilities necessary for ESL students to analyse and synthesise information. These skills enable students to evaluate their verbal and written academic work. This will give ESL students the skills to function at a more cognitively demanding level with their written and verbal academic work. On average, ESL students require 5–7 years to develop CALP (Cummins, 2013). Students develop CALP skills by continuing to read academic texts and frequently reviewing academic terminology alongside lectures.

It has been found that ESL students have increased stress levels when learning new professional terminology to maintain their academic work (Merry et al., 2021). This relates to ESL students' fear of looking inadequate, not understanding, and being unable to pronounce terminology (Crawford & Candlin, 2013a; Merry et al., 2021).

Many cultural groups believe it is rude and disrespectful to query people in authority (Henderson et al., 2016), but ESL students in clinical practice must communicate with nursing staff and other healthcare professionals to provide nursing care (Brewer et al., 2023; Crawford & Candlin, 2013b). This means that ESL students may need assistance interpreting information, such as patient handover and staff expectations (Crawford & Candlin, 2013a; Schoch-Spana et al., 2021).

ESL students also need therapeutic communication with patients and families, who may have yet to interact with someone with an accent or limited conversational English (Brewer et al., 2023; Hansen & Beaver, 2012). ESL students who lack confidence in communicating with patients can have an inappropriate tone, low volume, and lack eye contact (Brewer et al., 2023).

ESL students must be supported to develop written communication skills through nursing documentation (Guhde, 2003). ESL students may need help reading and comprehending documentation, including nursing care plans, terminology, and abbreviations used in patient notes. This is compounded by the fact that ESL students sometimes struggle to pronounce medical terminology. This results in students not verbalising or writing down medical terminology, leading to misunderstandings in clinical documentation (Guhde, 2003).

NZ utilises a teaching and learning approach that differs from traditional non-Western education, which can be challenging for ESL students. ESL students come from passive learning environments, where they rely on the teacher to pass on the information (Zhang & Reynolds, 2023). ESL students must transition from didactic to context learning to a self-directed pedagogical style where critical thinking is required for assessment.

The reading time for ESL students is longer than for non-ESL students. The length of time is related to students translating the written text into their native language and back to English (Moore & Waters, 2020; Rosina et al., 2022). ESL students can also have difficulties reading and comprehending English, which can be linked to their level of English development and medical terminology or abbreviations (Shah & Chettri).

Multiple choice questions (MCQs) can be barriers for ESL students. Questions can be wordy and full of colloquialisms, making it difficult for ESL students to understand. Students need to translate the question. MCQs are not designed to test people's recall of knowledge, but their critical thinking and decision-making process, which, as discussed, ESL students have difficulty with (Moore & Waters, 2020).

ESL students enrol in NZ nursing programmes in NZ and bring their traditions, values, and beliefs. There is an increased risk of cultural conflicts with faculty and clinical teaching environments. This can also occur in their communities, nursing programmes, and clinical settings (Jeong et al., 2011; Lewis & Bell, 2020).

Nursing pedagogy is based on a white, Anglo-Saxon culture, leaving limited movement for multicultural dialogue, as their teaching methods are often inflexible (Olson, 2012; Ranco et al., 2020). Anglo-Saxon culture views Western medicine as the norm, and therefore, clinical facilities design their nursing lessons around their own ethnocentric beliefs (Jie et al., 2022). The absence of academic teaching staff who serve as ethnic role models in clinical education, is a significant issue. Such role models could provide valuable support to both students and nursing faculty. Insufficient representation of educators from diverse ethnic backgrounds increases the likelihood of stereotyping ESL students (Huerta, 2023; Schoofs, 2012).

2.2.2 Personal

There are many personal reasons why studying can be made more difficult for ESL students. Conflicting expectations are often placed on them, resulting in learning barriers. For example, certain religious, cultural, and family expectations exist within some Middle Eastern and Pacific Island cultures, where students have extracurricular responsibilities, that conflict with their availability for studying and learning time (Lewis & Bell, 2020; Olson, 2012; Zepke et al., 2011).

Many ESL students have financial concerns. These concerns can be related to not being entitled to a study link allowance or paying international student fees. In some instances, an ESL student may be their family's primary source of income, with many migrants transferring money to their families in their native country. Some students may not have enough resources for the necessities of life, such as rent (Gajewski, 2022; Hussain et al., 2020)

Culturally, it is often up to female ESL students to carry the family responsibility of caring for family members (Hussain et al., 2020; Kidwell, 2022). This makes it difficult for them to find allocated time for study outside of coursework. ESL students can feel isolated or experience loneliness as their family and friends may be located worldwide, and they may not have established support networks in NZ (Singh, 2021).

There are several known barriers that ESL students need to overcome to be successful in nursing programmes in Western cultures (Crawford & Candlin, 2013b; Merry et al., 2021). They need help engaging in their nursing programmes, otherwise unsuccessful academic outcomes and non-completion rates may occur (Gajewski, 2022). Clinical schools, particularly nursing, are responsible for reviewing their educational environments to support minority cultures (Moore & Waters, 2020). Institutional, social, and environmental barriers affect ESL students' connections with their education facility and their success in their nursing programmes (Gardner, 2005; Lewis & Bell, 2020; Merry et al., 2021; Olson, 2012).

This dissertation aims to:

1. Identify programmes for teaching and learning that best support the successful completion of a pre-registration nursing programme.
2. Make recommendations for programme changes to support successful completion of a pre-registration nursing programme.
3. Make recommendations for changes to programmes to develop practice-ready ESL nurses who can confidently move from the role of pre-registration to registered nurse.

This chapter highlighted that the scarcity of nurses is a universal problem that also affects the nursing workforce in NZ. The chapter also shed light on the academic and clinical training requirements of ESL students and the obstacles students experience in completing their nursing education. The next chapter outlines the theoretical underpinning of the methods and methodology used to answer the research question.

Chapter 3 Methods

This research uses a realist evaluation methodology to undertake a realist review, that analyses the context and strategies that enable ESL students to navigate and complete their pre-registration nursing programme. The seminal work of Pawson and Tilley's realistic evaluation (Pawson & Tilley, 1997) will be adopted as the research methodology. It is applied to the context of a realist review of published literature on the research topic. This chapter will explain the realist synthesis method and its relevance to this study. The chapter will also demonstrate how ontological realism supports generative causation in realist synthesis.

3.1 Realism

The concept of 'realism' in philosophy falls on a spectrum between constructivism and positivism (Pawson et al., 2005). Realism considers the 'humanness' behind our current real-world interpretation by acknowledging that cognition, culture, and senses all play a part in our interpretation; thus, the realist philosophy creates an ability to accrue new information, with a deeper understanding which develops over time (Wong et al., 2013). The benefit of a realist review is that it is more flexible and interactive than conventional systematic reviews (Hewitt et al., 2014). Evidence can be synthesised to identify gaps (Jagosh et al., 2012) and gain new insights (Willis et al., 2016). A realist approach recognises that programmes work differently based on individual circumstances and timing (Rycroft-Malone et al., 2012).

The realist review examines how social influences impact participant behaviours and actions within a social phenomenon (DeForge & Shaw, 2012). It does this through a CMO configuration. The context (C) refers to the specific conditions or circumstances in which the events occur, including the social, cultural, economic, and political factors that shape the context in which the mechanism operates (Astbury, 2013; Pawson, 2013; Rycroft-Malone et al., 2012). The mechanism (M) represents the process or causal pathway through which the events in the context lead to the outcome (Pawson et al., 2005; Wong et al., 2013). The outcome (O) refers to the observed result or effect produced due to the interaction between the context and mechanism (Pawson et al., 2005; Rycroft-Malone et al., 2012). Together, these three elements provide a

comprehensive understanding of how and why certain events lead to specific outcomes (Pawson et al., 2005; Rycroft-Malone et al., 2012).

The CMO configuration is a valuable tool for researchers to identify and analyse the complex causal relationships underlying social phenomena and develop theories that systematically and rigorously explain these relationships (Pawson, 2013; Wong et al., 2013). By using the CMO configuration, researchers can move beyond mere correlations and associations to uncover the underlying generative mechanisms that drive social phenomena, thereby enhancing the explanatory power and practical implications of their research (Astbury, 2013; Pawson, 2013; Westhorp et al., 2011; Wong et al., 2013). This phenomenon is characterised by multiple layers of complexity, which involve intricate institutional structures in the fields of health and education. The mechanisms being researched all interact differently with each layer of reality. Therefore, it is important to note that the environments being reviewed are constantly changing (DeForge & Shaw, 2012).

3.2 Realist synthesis

Realist synthesis will be used to analyse the data in this review. Realist synthesis positions itself under the umbrella of implementation science (Rycroft-Malone et al., 2010). Implementation science aims to close the gap between evidence and policies used in practice, ultimately benefiting practice with current evidence-based policies (Jackson et al., 2021). In the global healthcare field, there is a challenge known as the "know-do gap", where effective methods are not implemented in patient care, which hinders health equity on a global scale. The Lancet Global Health Commission's 2018 report informs that poor-quality care, is currently a greater barrier to reducing mortality rates than insufficient access (Jackson et al., 2021). Evidence-based practice refers to a set of interventions that have been scientifically reviewed and considered robust enough to generate recommendations and policies in the professional setting (Handley et al., 2016). This study will provide insights into the difficulties faced by ESL students to maximise the success of ESL students completing their pre-registration programmes.

A synthesis approach adopts a realist viewpoint and acknowledges how the material and social worlds shape change. Realism understands the world by recognising causal

mechanisms and how they operate differently in various circumstances. Realist reviews have emerged as a strategy for synthesising evidence and focusing on explaining generative causation (Astbury, 2013; Rycroft-Malone et al., 2012; Shearn et al., 2017). Relationships can be explored using Pawson's CMO configuration, which can explain relationships by asking why interventions may or may not work, in what contexts, and how and in what circumstances (Rycroft-Malone et al., 2012). This means that realist synthesis can adapt to new information as it comes to light throughout the review.

A realist synthesis, therefore can be summarised as a methodological review of data from multiple studies and may include qualitative and quantitative methods to investigate the reasons for causation (Pawson et al., 2005). The realist research question focuses on all or some elements of who, where, what, when, and how (Pawson, 2006). These how and why questions help interpret why outcomes occur as they do (Oakley, 2000; Pawson, 2006). Healthcare has many variables and circumstances, so a realist synthesis suits health science research (Jagosh et al., 2014).

3.3 Ontology

Ontology is the study of science or reality, which fundamentally means what exists and what it means to exist (Creswell, 2013). Pawson's (2002) theory of realist synthesis stems from the ontology of critical realism (Pawson, 2002). Critical realism involves the human being in the knowledge process. Critical realism aims to find mechanisms that explain empirical patterns of reality. Based on this concept, Pawson developed a generative approach to causation.

3.4 Generative causation

Generative causation analyses how variables are related. Rather than simply exploring the relationship between cause and effect (Rycroft-Malone et al., 2012), generative causation will find underlying reasons that have led to participant changes (Pawson, 2002). As stated by Pawson (2002), "It is not 'programs' that work rather, it is the underlying reasons or resources that they offer subjects that generate change" (p. 342). In other words, programmes are not effective alone but can be a catalyst for change when combined with underlying reasons and resources.

Pawson describes the CMO configuration as part of generative causation and defining causal relationships, which is an important concept when conducting critical realist research. This configuration captures the underlying mechanism that connects events for an outcome to occur. The CMO configuration consists of three elements: 1) context, 2) mechanism, and 3) outcome, which help prove or disprove a hypothesis (De Weger et al., 2020; Pawson, 2006).

3.4.1 Context

Context refers to a situation where the environment provides the necessary conditions for a mechanism to function effectively. For instance, gunpowder remains ready to explode when stored in dry conditions with oxygen. An example in the context of this research, is that nursing students who are enrolled in a nursing programme are ready to learn and, under the right conditions, receive teaching and learning resources and support. With the support of academic institutions, nursing students can acquire academic knowledge and nursing skills. It is important to consider four layers of context when analysing a situation: the individual, interpersonal relations, institutional setting, and infrastructure. Each of these layers plays a significant role in influencing behaviour and decision-making (Pawson, 2013). This study aims to gain a comprehensive understanding of the different factors that impact the learning and engagement of ESL students in their nursing programmes. These factors include the individual ESL student; their interactions with peers, educators, and nurses; the learning environment in classrooms and clinical laboratories; and practical experience in healthcare settings. By examining these layers, the study aims to explore how they collectively influence the learning and engagement of ESL students in the educational and health context.

3.4.2 Mechanism

Mechanisms work in a context or circumstance that lead ultimately to specific outcomes (Pawson, 2013; Shaw et al., 2018). These mechanisms are the underlying processes or activities implemented within a programme to bring about change (Pawson, 2013; Rycroft-Malone et al., 2012; Westhorp et al., 2011). They are often referred to as interventions, which can be a wide range of strategies, activities, or actions that are designed to address the problem or issue at hand (Greenhalgh et al.,

2017; Pawson, 2013; Rycroft-Malone et al., 2012). These interventions can include educational campaigns, training programmes, policy changes, community mobilisation efforts, or any other approach believed to affect the desired outcome. The selection and implementation of these interventions are crucial in determining the success of a programme and its ability to produce the intended result (Greenhalgh et al., 2017; Pawson, 2006; Westhorp et al., 2011). The resources available, can impact participants' clinical judgement and programme outcomes (Greenhalgh et al., 2017). It is crucial to understand how the mechanisms in this study depend on the programmes (interventions) implemented. Understanding participant engagement with resources determines the success or failure of the programme.

3.4.3 Outcome

The final part of the CMO configuration is outcome. Outcomes refer to the expected and unexpected results that arise from the interaction of various programme mechanisms in different contexts (Astbury, 2013; Pawson, 2006). There will likely be various possible combinations of context and mechanisms for any given programme (Astbury, 2013).

3.5 Paradigm

This study will use a pragmatic paradigm, which is a philosophy that acknowledges multiple realities and aims to understand what works and how (Creswell, 2013). Pragmatists recognise that truth is obtained through scientific research, experimentation, and social inquiry (Mackenzie & Knipe, 2006; Schidelko et al., 2021). It is therefore important to review whether researchers' findings positively or negatively affect research outcomes. Pawson's CMO configurations are important for understanding why an innovative idea did or did not succeed (Pawson, 2013; Schidelko et al., 2021).

The pragmatic paradigm is a philosophy that embraces the mixed methods approach, putting the research question at the centre. This is an active process when knowledge and method are related and impact each other in a reciprocal loop. Both realist synthesis and the pragmatic paradigm use qualitative and quantitative data to review reasons and interactions between two questions. "*Why*" and "*how*" occurrences are connected and interact in analysing the line of action or causation.

3.6 Demi-regularities

Patterns or regularities known as demi-regularities occur within systems but are not consistent or universal (Jagosh et al., 2014; Pawson, 2013). By uncovering these demi-regularities and understanding how they interact with different contexts, researchers can develop more effective interventions and policies tailored to specific contexts (Greenhalgh et al., 2017; Jagosh et al., 2014; Pawson, 2013). The ultimate goal is to generate actionable knowledge that informs evidence-based practice and improves outcomes for individuals and communities (Greenhalgh et al., 2017; Rycroft-Malone et al., 2012; Wong et al., 2013).

3.7 Programme theory

Programme theory is a crucial element of realist synthesis and its overall goal. It aims to explain why programmes/interventions/mechanisms are successful in certain circumstances (Pawson, 2006; Shearn et al., 2017). A realist synthesis defines programme theory as how programmes are outlined and what intended outcomes will be achieved through them (Pawson, 2006; Shearn et al., 2017).

This study aims to synthesise published research on ESL students' success in pre-registration nursing programmes. Through exploration and analysis of existing literature, researchers seek to develop a theory or framework that enhances the results of ESL students. The synthesis will consist of identifying common themes and trends, formulating middle-range theories (MRTs), and proposing recommendations based on these findings for programmes, interventions, or policies. The main objective is to support evidence-based policy for informed practice. When looking at a programme through a realist synthesis lens, the programme theory provides resources, but the clinical judgement of the participants influences the outcome.

An example of a programme theory from this study, is that students are given a written script (resource) when acting as a patient during simulation. The simulation outcome of the programme theory is determined by how students use their clinical judgement using the script.

3.8 Mid-range programme theory

The goal of creating a CMO configuration is to ultimately develop an MRT. According to Pawson and Tilley (1997), MRTs are beneficial as they balance specificity and generality. They are specific enough to create hypotheses that can be tested yet general enough to be applied in different contexts. MRTs should be strong enough to be implemented in any programme. CMO configurations are essential in developing MRTs and consist of either singular or multiple CMO configurations to outline how interventions will work in particular circumstances to deliver a predictable outcome (Pawson, 2013).

The MRT will identify techniques and interventions that predict an outcome—that ESL students will complete their pre-registration programmes. The study will need to understand the social behaviours of participants, including health and educational professionals, in clinical and academic environments. Participants may be reluctant to change their behaviour, teaching styles or strategies, resulting in hesitations to do what is expected.

3.9 Complex systems

It is important to acknowledge the complexity of the structures humans need to navigate within their organisations. Organisational structures, such as corporations and government agencies, are considered “complex structures” because they have many factors that influence their functioning (Pawson, 2013). These factors come from both within and outside the system, add complexity, and may include policies, cultural norms, legislation, stakeholder expectations, regulatory bodies, financial considerations, and time constraints. All these elements can interact differently and sometimes even oppose each other at different times. Some elements are changeable, such as fatigue and stress levels of staff. This makes complex systems a consideration for Pawson’s concept of what works for whom in what circumstance (Pawson, 2013; Shaw et al., 2018; Wong et al., 2013).

Managing complex systems can be compared to the skill of spinning plates. Here, the plates symbolise different elements or influences that affect structure and function. These plates may vary in shape, size, and number at any time. A system can be

considered complex when it must manage multiple plates simultaneously to achieve its performance targets (Pawson, 2013; Shaw et al., 2018; Shearn et al., 2017).

This study delves into the complexities of two systems: educational institutions and healthcare systems. Both systems have contextual layers that directly impact their effectiveness under different circumstances. Healthcare systems need to take specific actions and measures to cater to the unique needs of their patients. Additionally, they need to provide adequate education to students in clinical settings. Clinical science facilities such as nursing, have a unique structure, including policies and legislation, examination boards at nursing schools, the NCNZ, hospital policies, and the New Zealand Qualifications Authority. The contextual layers of these two complex systems overlap, adding another level of complexity to this study.

In summary, the overarching end goal of realist synthesis is to develop a programme theory (Rycroft-Malone et al., 2012). Programmes that are implemented into contexts influence mechanisms, which results in intended and unintended outcomes (Wong et al., 2013). This study will use the guidelines outlined in the Realist and Meta-narrative Evidence Syntheses: Evolving Standards (RAMSES) publication standards, for realist synthesis to maintain rigour and give the study structure. The standards will be adhered to in the abstract, methods, results, and discussion chapters (Wong et al., 2013).

3.10 Application of realist synthesis stages to this dissertation project

3.11 Study aims.

This study proposes to close the “know-do gap” between teaching and learning strategies for ESL students and recommend programme changes that will influence practice/teaching and learning strategies for students. The recommendations will be based on the programme theory developed using the CMO configuration used to analyse and synthesise research. The research will examine interventions that work for ESL students and make recommendations for nursing schools to support ESL students in successfully completing their nursing programme.

The aims of this realist synthesis are to:

1. Identify programmes for teaching and learning that best support the successful completion of a pre-registration nursing programme.
2. Make recommendations for programme changes to support successful completion of a pre-registration nursing programme.
3. Make recommendations for changes to programmes to develop practice-ready ESL nurses who can confidently move from the role of pre-registration to registered nurse.

3.12 Method

This review utilises a realist synthesis to examine interventions supporting ESL nursing students' programme completion. The realist synthesis method is a five-step process: formulating the review question; identifying and collecting the evidence; appraising the quality of evidence; extracting and processing the data; and synthesising the data. These steps are further detailed below:

1. Formulating the review question

   The title of this research is *Supporting Students with English as a Second Language to Succeed in Pre-Registration Nursing Programmes: A Realist Review*. The research question should prompt the review to offer evidence for practice development and policy recommendations. This realist synthesis research asks, "what are the contexts and strategies that support students with English as a second language to succeed in pre-registration nursing programmes?".

   The structures identified in this study include nursing education facilities, the healthcare environment and all elements that affect their function, which are constantly changing. This study will review causal agents/causation in complex structures. This study is warranted because of the growing number of ESL students enrolling in nursing programmes in NZ. Each organisation aims to graduate nurses to meet healthcare demand. Active engagement in learning is critical for ESL students to complete nursing programmes within the expected timeframe, pass the state final examination, gain employment or admission to a new graduate programme, and feel a sense of belonging in the nursing profession.

2. Identifying and collecting the evidence

   This step includes conducting a background search to identify key research to answer the research question. The stage involves a progressive focus on the articulated question based on a thorough search using key terms (see Table 2), refined inclusion/exclusion criteria (see Table 3), and purposive sampling to test the emerging hypothesis. The study included a search of the CINAHL, Cochrane, EBSCO, MEDLINE and Google Scholar databases. Realist synthesis includes elusive "grey literature". At this step, the researcher develops an understanding of the research subject, which helps formulate provisional programme theories. The researcher may also need to consult with experts and stakeholders to gain a deeper understanding.

Table 2 Search Strategies

"English as a second language" OR "ESL" OR "English as additional language" OR "EAL" Or "English for speakers of other languages" OR "esol" or "Non English Backgrounds" OR "nonactive speakers of English" OR" English as a foreign language" OR "EFL"*
"nurse" OR "nurses" OR "nurs OR "nursing student" OR "training" OR "school "OR "undergraduate" OR "learn* style" OR "learning method" OR "learning strateg**
"barriers" OR "enablers" or 'challenges"
"New Zealand" OR "Pacifica" OR "Pacifika" OR Pacific" OR "Māori" OR "Asian" OR "indigenous" or "native"

Table 3 Inclusion and exclusion criteria

Inclusion criteria	**Exclusion criteria**
Pre-registration nursing education delivery in tertiary institutions within Western and non-western systems	Articles not in English
Educational systems where English is the national language	Hospital-based training
Countries that have integrated students outside of their mother tongue into their nursing programmes	Articles pre-2012
Clinical science programmes in tertiary institutions within Western and non-Western systems	Articles that could not be analysed using the CMO configuration
Articles between 2012 and 2022	

3. Appraising the quality of evidence

   A standardised protocol for appraising the quality of evidence in a realist synthesis does not exist. Instead, judgements are made to assess the relevance and robustness of the evidence (Wong et al., 2013). When evaluating a study, two key factors to consider are its relevance and rigour, as well as how its data can contribute to developing or refining theories. Relevance refers to the study's ability to contribute to theory-building, while rigour refers to the methodology used to collect trustworthy and credible data. This study will use a mixed methods appraisal tool (MMAT) (Hong et al., 2018) to assess relevance and rigour. (Please see appendix A)

4. Extracting and processing the data

   In order to analyse and synthesise the data in this study, a realist logic will be used to extract information on the intervention (I), outcome (O), and population (P) to which it applies (Pawson, 2006). This includes descriptions of what was done in the programme and an explanation of how it was done (Pawson, 2006; Wong et al., 2013). The data includes CMO configurations, demi-regularities, middle-range, and programme theories. The collected data must be clearly and concisely linked to the research question. This study will provide clear information on the items in each research study, enabling the reader to assess the quality of inclusion and the researcher's rationale for it (Wong et al., 2013). (See appendix A).

5. Synthesising the data

   This step explains the findings by identifying the impact of programme theory influenced by Pawson's generative causation (Pawson et al., 2005; Rycroft-Malone et al., 2012). This involves understanding how the programme's activities and interventions are expected to lead to desired outcomes and identifying potential factors that may influence this relationship (Greenhalgh et al., 2017; Pawson et al., 2005). By doing so, the mechanisms at play and conditions under which the programme is likely to be effective can be better understood. This step is crucial for interpreting and explaining the findings of programme evaluations, as it provides a deeper understanding of the programme's theory of change and the underlying causal mechanisms that drive its outcomes (Rycroft-Malone et al., 2012).

This research uses thematic analysis to synthesise the findings following the six steps provided by Braun and Clarke (2019), which consist of: 1) becoming familiar with the data, 2) generating codes, 3) constructing themes, 4) reviewing themes, 5) defining and naming themes, and 6) reporting themes. Thematic analysis enables social and psychological interpretations of data, providing the researcher with a deeper understanding of the phenomenon (Braun & Clarke, 2019). All data was read and re-read to become familiar with the content. Codes were then identified for each of the 10 articles and written down on coloured sticky notes. All similar codes were then grouped together, which initially comprised seven major themes. These themes needed to be specific and different, so any that were complementary were combined and organised together. Finally, the analysis revealed three themes throughout the literature and provided insight into the research question (see figure 2).

Through the synthesis of articles and capturing CMO configurations a programme theory can be formed, which can be applied to evidence-based practice development in both education and clinical environments.

3.13 Summary of methodology

This chapter described the theoretical underpinnings of the realist methodology and described the method of using Pawson's realistic evaluation of using context, mechanism and outcome to develop a program theory to answer the research question. This chapter also described the methods of following a systematic literature review process, providing inclusion and exclusion criteria and a PRISMA to identify articles to answer the research question. This chapter also showed how the chosen articles were critically appraised and analysed using thematic analysis. The next chapter reveals the findings.

Chapter 4 Findings

This chapter will provide a comprehensive overview of the findings from the ten research articles included in this realist synthesis. The reviewed literature consists of four qualitative studies: Adedokun et al, 2022 (United States), Choi, 2019 (Canada) Choi & Brochu, 2022 (Canada), Havery, 2019 (Australia), and six quantitative studies: Denham, 2018 (United States), Donnell, 2015 (United States), Kelton, 2014 (Australia), King, 2017 (Canada), Rogan & San Miguel, 2013 (Australia) and San Miguel & Rogan, 2015 (Australia). These ten studies were obtained following the PRISMA guidelines after removing duplicates, screening articles, and excluding articles that did not meet the inclusion criteria (see Figure 1). The significance of including Prisma in this context cannot be overstated, as it perfectly corresponds to the stages of a realist synthesis according to the "Rameses II project" (Greenhalgh. et al, 2017).

Through thematic analysis, three predominant CMO configurations emerged and provided deeper insight into the contexts that ESL students experience and strategies that help ESL students succeed in pre-registration nursing programs, and desired outcomes. These CMO's will ultimately be used to create a mid-range theory. Visual representation of the subthemes can be seen (see Figure 2), that led to the themes and demonstrate the interconnectedness and complexity between context, mechanism, and outcome in the research findings.

The first theme identifies that the main barrier to success for nursing students in successfully completing a nursing programme, is command of the English language. Factors such as rules around grammar, scope of vocabulary needed, and idiomatic expressions all make learning the science and art of nursing difficult. The second theme explores the lack of self-efficacy experienced not only for ESL students as they complete their studies, but also clinical facilitators in their ability to prepare ESL student nurses, to pass their exams and be practice ready. The last theme focuses on the importance of transcultural development, this theme recognises the importance of tertiary institutions in understanding the ESL's culture to assist them in successful completion of their undergraduate studies.

Figure 1 Prisma

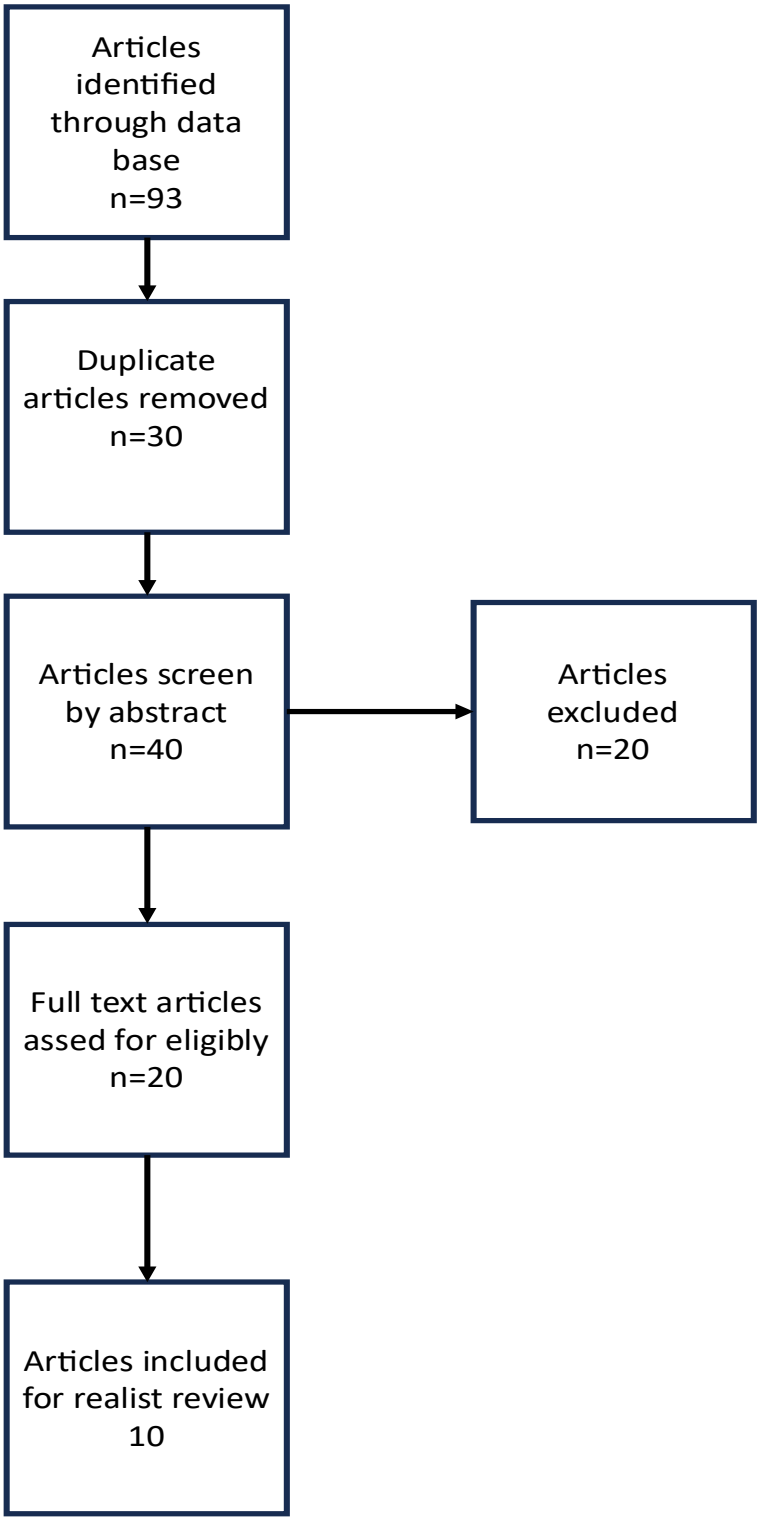
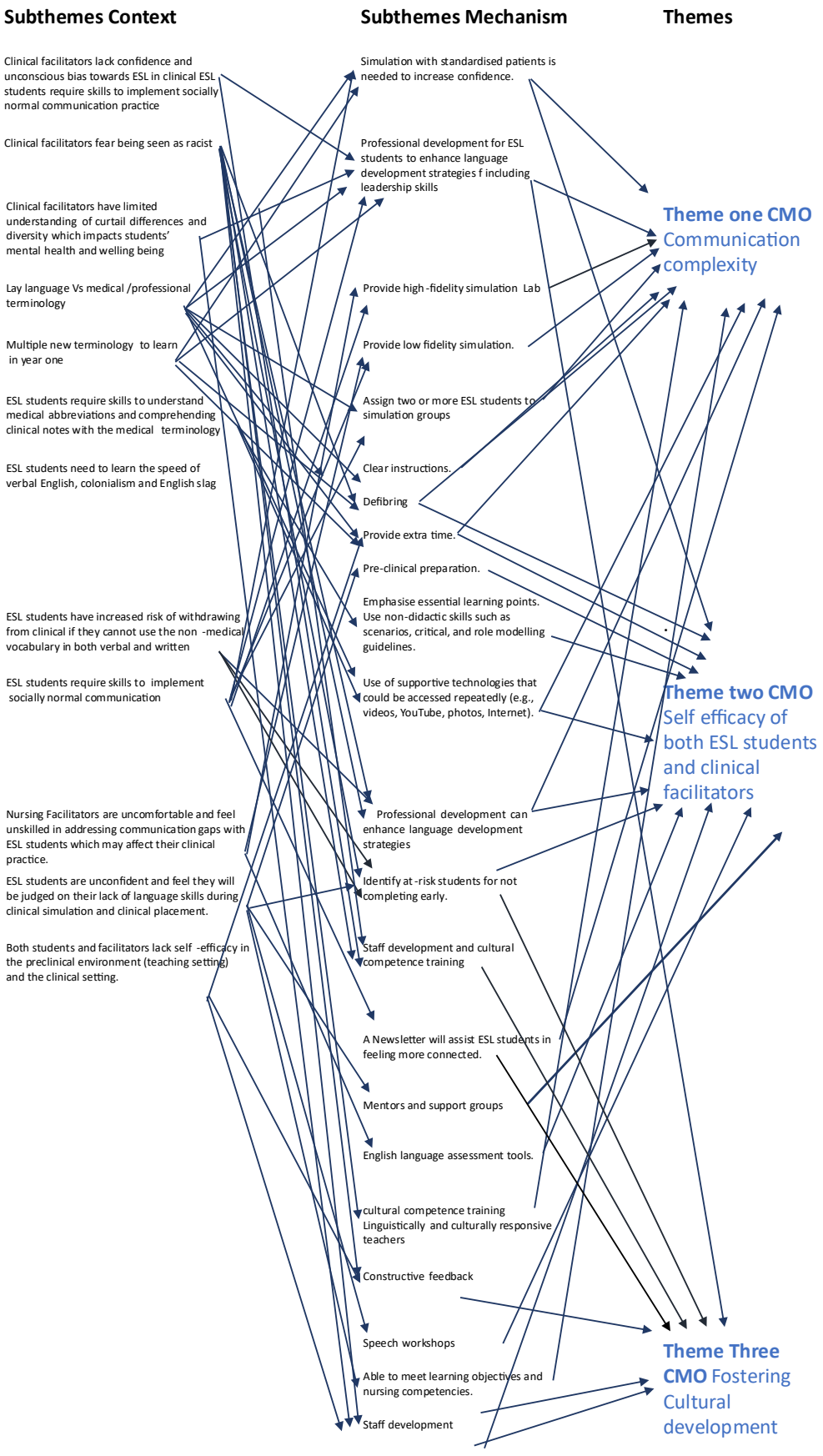


Figure 2 Formation of themes from context and Mechanism interaction



Theme 1

Communication complexity

The core theme underlying ESL's success, is the necessity for students to have a solid understanding and mastery of the English language, prior to enrolling in nursing programs. This theme is represented as a CMO (Table 4) and is elaborated on below the table under the headings: -context, mechanism, and outcome.

Table 4 CMO communication complexity

Context	Mechanism	Outcome
Complexity of using English as a second language Difficultly learning medical terms Not able to participate in small talk ESL students need to adapt English speaking styles Difference between culture and language	Additional workshops Practising speaking English outside of class and in their place of employment Use of an International Student Liaison Officer	Communicate in both classroom and clinical settings using complex nursing terms and medical terminology

Note: Pawson's CMO configuration.

4.1.1 Context for communication complexity

Among the studies reviewed, seven highlighted a significant lack of English proficiency among ESL students (Adedokun et al., 2022; Choi, 2019; Denham et al., 2018; Havery, 2019; King et al., 2017; Rogan & San Miguel, 2013; San Miguel & Rogan, 2015). Nursing schools strive to have a culturally diverse student body, but English proficiency remains a serious concern for ESL students, both in their academic studies and during their clinical placements. This concern was found across all significant key players in nursing education: the ESL student, academic staff and clinical facilitators, (Adedokun et al., 2022; Choi, 2019; Havery, 2019; King et al., 2017; San Miguel & Rogan, 2009, 2015).

4.1.2 Communicating with others

Nursing programs present numerous language and communication challenges for ESL students (Choi, 2019; Choi & Brochu, 2022; Havery, 2019; King et al., 2017). Besides performing assessments and providing nursing cares, students also need to communicate effectively with patients, while doing these day-to-day nursing activities (Adedokun et al., 2022). Students are required to verbally explain nursing care to patients (Adedokun et al., 2022; Choi, 2019; Havery, 2019; San Miguel & Rogan, 2015), and educate patients (Adedokun et al., 2022). If English proficiency is lacking, this can lead to misunderstandings and jeopardise patient safety.

It may take longer for ESL students to interpret interactions- cognitively. This process often involves translating words into their native language and then back to English, which consumes more time (Adedokun et al., 2022; Choi, 2019; Havery, 2019; Kelton, 2014; San Miguel & Rogan 2015). Another difficulty is keeping up with the rapid pace at which native English speakers often speak, making it challenging for ESL students to catch every spoken word and comprehend the message. ESL students also need to navigate the nuances of the host country's colonial history, this understanding is necessary for comprehending cultural references and societal norms. Interpreting English slang poses another hurdle for ESL students, it is desirable for ESL students to become familiar with these to fully comprehend and engage in conversations (Adedokun et al., 2022; Choi, 2019; Havery, 2019; King et al., 2017; San Miguel & Rogan, 2015). On top of basic communication skills with patients, there is academic pressure, with nursing students being expected to learn over 200 new nursing terminologies in their first year of study (Rogan & San Miguel, 2013).

English as a second language students also need the skills to engage in socially appropriate communication, including introducing themselves, providing patient education that is not to complicated, and engaging in small talk with patients (Choi, 2019; King et al., 2017). Students often experience heightened anxiety, as they are unsure of how to start conversations or what to say or do, when interacting with patients (King et al., 2017). To be able to effectively communicate with patients and their families using non-medical language is important (Adedokun et al., 2022; Havery, 2019; King et al., 2017; Rogan & San Miguel, 2013; San Miguel & Rogan, 2015). However, ESL students often struggle to differentiate between lay or casual English

spoken during day-to-day life, and medical or professional terminology (Havery, 2019; King et al., 2017; Rogan & San Miguel, 2013). If ESL students do not feel comfortable engaging in casual conversation, they are at risk of withdrawing from their clinical placements (Choi & Brochu, 2022; Denham et al., 2018; Havery, 2019).

Communication skills are also important to enhance professional development with peers and colleagues, during clinical placement (Choi, 2019; Choi & Brochu, 2022; Denham et al., 2018; King et al., 2017). In the clinical setting, ESL students who struggle to communicate with their preceptors experience negative consequences that hinder their learning and acquisition of nursing skills (Denham et al., 2018; San Miguel & Rogan, 2015). Often lack of engagement is seen as lack of knowledge, consequently, ESL students are perceived as requiring assistance in meeting the learning objectives and nursing competency requirements set by their educational institutions (San Miguel & Rogan, 2015).

Students with strong accents may feel embarrassed to communicate, for fear that others may misunderstand their pronunciation, leading to completely different meanings. Furthermore, teachers frequently ask ESL students to repeat themselves, which only adds to their frustration and embarrassment (Choi, 2019). The anxiety experienced by students is further heightened when patients express their difficulty in understanding what they are saying (Choi, 2019; San Miguel & Rogan, 2015).

4.1.3 Mechanisms for communication complexity

One of the key mechanisms to assist ESL students with communication, is to incorporate strategies to evaluate students' reading comprehension and English pronunciation skills, as early as possible (Denham et al., 2018; Donnell, 2015; Havery, 2019; Havery et al., 2019; San Miguel & Rogan, 2015). Depending on the results of ESL students English language tests, teachers may send referrals for students to attend workshops or clinical speaking programmes especially designed for them (Havery et al., 2019; San Miguel & Rogan, 2009). There is a variety of English language assessment and language development tools mentioned in this synthesis; the Test of English as a Foreign Language (TOEFL) (Adedokun et al., 2022), the Weaver Reading Intervention program (Donnell, 2015), language guidelines (San Miguel & Rogan, 2015), English

Language Acculturation Scale (Denham et al., 2018), and using Cummins second language acquisition tool (King et al., 2017).

4.1.4 Facilitators

Facilitators' interactions with students must include clear expectations and learning objectives (Adedokun et al., 2022; Denham et al., 2018; Havery, 2019; Rogan & San Miguel, 2013). This extends to using clear and concise language during lectures (Denham et al., 2018; Greenfield, 2011; Havery, 2019; Rogan & San Miguel, 2013), and during clinical placement, to ensure all instructions are understood, to prevent misunderstandings (Havery, 2019). It is important that all written instructions and tests are reviewed, and any confusing meaning that can result in cultural misinterpretations, are removed (Denham et al., 2018; Kelton, 2014; Rogan & San Miguel, 2013).

In-services given to clinical facilitators, will help them to develop skills to assess students' conversational English and professional language in simulation rooms and help facilitators gain confidence to get the appropriate help that ESL students need (Adedokun et al., 2022; Donnell, 2015; King et al., 2017; Rogan & San Miguel, 2013; San Miguel & Rogan, 2015).

4.1.5 Outside program assistance

To succeed, ESL students may require additional learning opportunities, such as extra classes and increased support from their tertiary institution (Adedokun et al., 2022; Choi, 2019; Denham et al., 2018; Kelton, 2014; King et al., 2017; San Miguel & Rogan, 2015). Since 2004, the University of Technology Sydney, has offered a Clinical Speaking programme where university staff from language and literacy services work collaboratively in the nursing programmes to offer a language program to help students communicate effectively during clinical placement (Havery, 2019). Other authors used examples of taught skills such as introducing oneself, engaging in small talk, and explaining healthcare procedures like taking vital signs which are essential communication skills in the nurse patient relationship (Rogan et al., 2006; San Miguel & Rogan, 2015).

When writing and designing lesson plans and course curricula, it is good practice for teachers and facilitators to include specialised language teachers who can focus on

reading, writing and verbal communication skills within the lesson to ensure that students can understand the context and further develop their English language skills (Havery, 2019). Collaborating with specialised language teachers outside the nursing department is beneficial in clarifying course content and prioritising essential information (Havery, 2019). It is important to give ESL students guidance and skills to learn what the key concepts are and where to focus their learning (Denham et al., 2018). Language teachers can review the course information from a student's perspective to assess what information is vital for students' learning and avoid overcomplicating the content (Adedokun et al., 2022; Havery et al., 2019). Teaching tools such as accessing supportive technology that could be repeatedly accessed (e.g. videos, YouTube, photos, Internet) are influential in enhancing learning (Denham et al., 2018).

One way to address any issues identified with students who require additional assistance is by providing them with an intensive clinical speaking program. The coordinator can schedule the program at least two weeks before their initial clinical placement (Adedokun et al., 2022; Choi, 2019; Choi & Brochu, 2022). Additionally, Choi and Brochu (2022) found that there were benefits in making a student's clinical placement a formative placement, which enables the ESL student to focus on their communication with preceptors, health care teams, patients, clinical facilitators, and orientation to the clinical environment. During these types of placements students will also learn to receive and interpret constructive feedback without fear of being unsuccessful in placement (Adedokun et al., 2022; Choi, 2019; Choi & Brochu, 2022).

Other ways to support ESL students is to get them participating in speech workshops (Choi, 2016; Havery, 2019; Rogan & San Miguel, 2013; San Miguel & Rogan, 2015). These workshops, designed for small groups of ESL students, can help improve their English pronunciation and understanding of nursing terminology (Havery, 2019; Rogan & San Miguel, 2013). They provide guidance on speech development, including tongue placement, and receive feedback on pronunciation clarity (Choi, 2016).

4.1.6 Enhancing Leadership opportunities

Engaging in extracurricular activities is another way to increase students' language proficiency as these activities encourage ESL students to enhance existing skills and

cultivate leadership skills (Choi, 2019; Choi & Brochu, 2022; Denham et al., 2018). Examples include becoming involved in peer mentoring, public speaking, and other leadership opportunities (Choi & Brochu, 2022; Denham et al., 2018). ESL students who engage in leadership opportunities, develop leadership behaviours, self-growth, and personal development (Adedokun et al., 2022; Choi & Brochu, 2022; Denham et al., 2018). This will also give ESL students with difficulty in clinical speaking, the opportunity to develop interpersonal skills which leads to enhanced mental well-being and greater satisfaction (Choi & Brochu, 2022). It is hypothesised that students will have greater engagement with their academic studies and more purposeful interactions, resulting in students giving back to their community, once their course is completed (Adedokun et al., 2022; Choi & Brochu, 2022). With the ability to set goals, ESL students can strive towards their academic, professional, and leadership aspirations. The skills developed with these activities include problem-solving, organisation, and communication, can be directly applied to students' academic and clinical studies (Choi & Brochu, 2022; Denham et al., 2018).

4.1.7 Extra wrap around programmes

Two authors support the use of mentors and developed a mentor program where third-year students who are domestic or international, support year-one ESL students (Choi & Brochu, 2022; Denham et al., 2018). Mentors selected who are non-ESL students are given training on how to support students and provide a sense of community and belonging (Choi & Brochu, 2022; Denham et al., 2018).

Support groups for ESL students run bimonthly, and can assist in addressing psychosocial and academic issues and provides a space where they can express their concerns and challenges with progress in their nursing training (Adedokun et al., 2022; Choi, 2019; Choi & Brochu, 2022; Kelton, 2014). Faculty members and non-ESL students are encouraged to attend, as this assists with socialising and forming bonds outside their cultural cohort (Choi, 2019).

A newsletter is another mechanism that could assist ESL students to feel more connected, and is another outlet whereby students can communicate with ESL and non-ESL students, faculty and staff (Adedokun et al., 2022; Choi & Brochu, 2022). Included in the newsletter could be examples of academic work from both ESL and

non-ESL students' abstracts on their experiences from training, both their academic studies and clinical placement (Adedokun et al., 2022; Choi & Brochu, 2022).

4.1.8 Outcome for communication complexity

The overall goal for this CMO is to have ESL students who can engage within the classroom and in clinical placement, the below diagram shows the optimum goal of this CMO on the right and the least desired result on the left.

Table 5 communication complexity continuum

Suboptimal Outcome	Optimum Outcome
CMO Pre-Clinical Placement Preparation	
Use of non-medical words not engaging in class and in clinical students feel uncomfortable	Communicate effectively in both the classroom and clinical settings.

Note: The outcome from Pawson CMO configuration

By the end of the program, ESL students will have developed confidence in all areas of communication, including verbal and non-verbal communication, with both non-medical staff and within the medical team. They will also be able to switch between conversational English and professional nursing language, which will enhance their ability to communicate effectively with patients and colleagues from diverse backgrounds.

4.2 Theme two- Self efficacy of both ESL students and clinical facilitators.

This CMO highlights the need for higher self-efficacy for both ESL students and clinical facilitators. ESL students must possess a belief in themselves to actively engage in their nursing training program. Similarly, clinical facilitators also need self-efficacy to be confident educators who can effectively support ESL students.

Table 6 CMO Self efficacy pre-clinical preparation

Context	Mechanism	Outcome
Students lack self-efficacy in their communication and clinical skills in the preclinical environment (teaching setting) and the clinical setting. Clinical facilitators have decreased self-efficacy in assessing English language proficiency, both in pre-clinical and clinical environments.	Simulation both low and high with standardised patients, is encouraged to increase confidence. Professional development can enhance language development strategies including leadership skills.	Clinical facilitators are confident in their ability to work with ESL students and to guide them to successfully pass. Similarly, ESL students are confident that they will acquire the nursing knowledge, communication, and clinical skills to successfully complete their nursing programme.

Note: Pawson's CMO configuration.

4.2.1 Context for self-efficacy for both facilitators and students in both the teaching and the clinical settings

ESL students who engage in their nursing studies often struggle with self-confidence to participate in learning activities and clinical practice. They believe they lack competence, which leads to a lack of confidence and negatively impacts their engagement (Adedokun et al., 2022; Choi, 2019; Havery, 2019; King et al., 2017). The reasons for the lack of self-efficacy are multifactorial and include inadequate English skills, which leads to students developing frustration, panic, and embarrassment (Adedokun et al., 2022; Kelton, 2014; King et al., 2017; San Miguel & Rogan, 2015).

Many barriers exist; for example the cultural values of ESL students and native non-ESL students can differ, leading to discomfort and hindering ESL students' learning (Choi & Brochu, 2022; Denham et al., 2018; Gilchrist & Rector, 2007; Havery, 2019; Hopkins & Stephens, 2021; Rogan & San Miguel, 2013). ESL students may also come from cultures where it is considered disrespectful to make direct eye contact with authority figures, while native students may interpret this as a lack of engagement or attentiveness (Adedokun et al., 2022).

The attitude displayed by native students towards ESL students, made the ESL students feel like they were not making any progress. Students from diverse ethnocultural backgrounds may feel isolated and find it difficult to connect with their native English-

speaking peers due to their accents and culture (Adedokun et al., 2022; Choi, 2019; Denham et al., 2018; King et al., 2017). Confidence can be disrupted during simulation learning, as ESL students feel constantly evaluated by faculty members who promptly point out their mistakes (Kelton, 2014; King et al., 2017).

This lack of confidence extends to clinical placement (Choi & Brochu, 2022; Havery, 2019; King et al., 2017; San Miguel & Rogan, 2009). ESL students often need assistance with what to expect in clinical placement, as the environment is unfamiliar. They feel they cannot contribute, and as a result feel undervalued (Havery et al., 2019; King et al., 2017). Ineffective communication skills during clinical practice are described as the main reason that students remain in an observational role, leaving them feeling omitted (Choi & Brochu, 2022; Rogan & San Miguel, 2013; San Miguel & Rogan, 2015). This in turn impacts on ESL students' willingness to engage in clinical discussion to develop further communication, nursing skills and knowledge (clinical judgment). According to King et al. (2017), ESL students frequently experience a sense of being unwelcome and encounter hostility when working in clinical settings. ESL students perceive that patients may feel frustrated and disappointed with the care they provide, which leads students to believe that patients are annoyed with them (Adedokun et al., 2022; Denham et al., 2018; Kelton, 2014; King et al., 2017).

Studies included in this realist synthesis emphasise the ongoing concern of clinical facilitators regarding the communication abilities of ESL students (Adedokun et al., 2022; Choi, 2019; Choi & Brochu, 2022; Denham et al., 2018; Havery et al., 2019; King et al., 2017; Rogan & San Miguel, 2013; San Miguel & Rogan, 2015). For facilitators, this is primarily due to a lack of confidence and understanding of the culture of their students, which affects their ability to support the students' development with written and verbal professional communication during their clinical placement (Adedokun et al., 2022; Havery et al., 2019; San Miguel & Rogan, 2015). Clinical facilitators perceive themselves as nursing experts, but may have insufficient skills to assess the English development of ESL students (Havery et al., 2019).

Clinical facilitators also found it difficult to evaluate ESL students' communication when it leads to an undesirable result for the student (Havery et al., 2019; San Miguel & Rogan, 2015), often only addressing communication concerns when there is a safety

issue that has resulted in a sentinel event or near miss (Havery et al., 2019; San Miguel & Rogan, 2015).

4.2.2 Mechanisms for increasing self-efficacy for both facilitators and students in both the teaching and the clinical setting.

Facilitators self-efficacy

To increase facilitators' confidence in giving feedback, researchers recommend using a constructive feedback tool, such as language guidelines, which is a tool with clear criteria, that is transparent to both parties (Adedokun et al., 2022; San Miguel & Rogan, 2015). The development of a language assessment tool involves a collaborative effort between nursing and language academics. The aim of having such a tool is to provide a structured framework for clinical facilitators to give students feedback regarding their English language skills. It is objective, so enables evaluation without any bias or judgment (San Miguel & Rogan, 2015). A structured tool can make transparent explicit expectations to be discussed with students, and which align with the communication expectations of nursing schools (San Miguel & Rogan, 2015). Furthermore, ESL students can use the tool to evaluate their own communication in simulation or when they are out on clinical placement (San Miguel & Rogan, 2015).

Providing professional development opportunities for clinical facilitators can enhance their coaching and assessment skills of English language proficiency, enabling prompt identification of struggling ESL students (Adedokun et al., 2022; Choi, 2019; Choi & Brochu, 2022; Donnell, 2015; Havery, 2019; Kelton, 2014; King et al., 2017; Rogan & San Miguel, 2013; San Miguel & Rogan, 2015). It also offers professional development, that provides skills to facilitators for working with ESL students in a clinical placement should be offered. According to Harvey (2019), strategies that can help, include using visual aids, such as pictures and diagrams, to support comprehension and learning. Additionally, San Miguel and Rogan (2015) suggest scaffolding techniques. Scaffolding encompasses the role of the clinical facilitator in aiding learning new concepts, sharing information, and showing problem-solving strategies. As the learning process unfolds, the clinical facilitator gradually fades into the background, enabling students or a group of students to practice and solve problems independently.

As part of their professional development, clinical facilitators are encouraged to keep a reflective journal when working with ESL students (Havery, 2019; San Miguel & Rogan, 2015). This journal enables them to reflect on their teaching strategies, student interactions, and overall experiences to continuously improve their practice (Havery, 2019). When the clinical facilitators meet with their mentor or during planned professional development meetings, they can discuss and reflect upon their journal entries using a reflective model such as Gibbs' Reflective Cycle or Kolb's Experiential Learning Cycle (Havery, 2019; San Miguel & Rogan, 2015). This process helps to analyse their teaching methods, identify areas for growth, and develop action plans for improvement. To ensure effective communication and documentation, a summary of the meeting can be emailed to all participants, highlighting the main points discussed and any agreed-upon actions or next steps. This summary would serves as a reference for ongoing professional development and accountability (Havery, 2019; Kelton, 2014; San Miguel & Rogan, 2015).

4.2.3 Simulation

The findings from this realist synthesis found that simulation is a powerful mechanism to assist ESL students to gain the skills needed to successfully complete their nursing programme (Adedokun et al., 2022; King et al., 2017; San Miguel & Rogan, 2015). Throughout simulation students can feel more confident in what to expect in clinical placement and gain insight into other members of the nursing and healthcare team and how to communicate with them (Adedokun et al., 2022; Choi & Brochu, 2022; Donnell, 2015; Havery, 2019; Kelton, 2014; King et al., 2017; Rogan & San Miguel, 2013; San Miguel & Rogan, 2015). Simulation is highly recommended as it assists with the development of clinical and communication skills that can be easily applied to real patients and their families (Adedokun et al., 2022; King et al., 2017; San Miguel & Rogan, 2015). Because ESL students have limited nursing knowledge and conversational English skills, it offers a safe learning environment where students can effectively practise their patient responses, as if they were in a clinical setting (Adedokun et al., 2022; King et al., 2017; San Miguel & Rogan, 2015).

An additional factor for successful learning during simulation is the promotion of simulation preparation, as it enables ESL students to gain insight into what they can expect in the forthcoming lesson (Adedokun et al., 2022; King et al., 2017; San Miguel

& Rogan, 2015). This can include watching videos, reading, and providing case studies so they can be discussed (Adedokun et al., 2022; Havery, 2019; Rogan & San Miguel, 2013).

Along with successful preparation, ESL students feel that simulation and standardised patients make them more prepared for what they will encounter in clinical practice (Adedokun et al., 2022; King et al., 2017). The use of standardised patients (a trained person who will represent a patient realistically), can create teachable moments so that ESL students can actively participate and learn to respond in English, mirroring what they can expect in the clinical environment (King et al., 2017). Standardised patients provide a risk-free learning environment for ESL students as they give students a safe place to make mistakes without putting patients at risk (King, 2017).

Another source highlights the importance of high-fidelity simulation (Adedokun et al., 2022). After participating in simulation, ESL students gain a better understanding of the significance of developing and maintaining therapeutic communication with patients and their families (Adedokun et al., 2022; King et al., 2017; San Miguel & Rogan, 2015). Additionally, ESL students show improvement in their English communication abilities, for example they can effectively convey complex medication information to non-health professionals (Adedokun et al., 2022; King et al., 2017; San Miguel & Rogan, 2015). Simulations also allow students to learn about different patient demographics and potential biases they may experience, such as working with mental health issues or older adults (King et al., 2017).

During simulation, it is recommended that there should be at least two or more ESL students in one group (Adedokun et al., 2022), ESL students find support and reassurance from being around fellow ESL colleagues (Choi, 2019; Choi & Brochu, 2022; Denham et al., 2018; Havery, 2019). It is also necessary to implement strategies that address discrimination and communication difficulties. One effective strategy is to encourage students to record their ideas and answers before speaking in front of non-ESL student colleagues (Adedokun et al., 2022; San Miguel & Rogan, 2015). It is also important to allocate more time for ESL students to participate in simulation (Adedokun et al., 2022; King et al., 2017; San Miguel & Rogan, 2015). Simulation therefore produces a community of supported practice within the student population

by increasing student learning, professional role progression and over all retention in the nursing program (Choi, 2016; King et al., 2017; San Miguel & Rogan, 2015).

4.2.4 Outcome for self-efficacy for both facilitators and students in both the teaching and the clinical settings

The desired outcome of the mechanisms offered above, is to equip ESL students and facilitators with the necessary confidence in their ability to assist ESL students to succeed in their preregistration nursing programme and be competent in meeting the requirements set out by regulatory bodies such as nursing councils, and for facilitators to have the skills to feel confident in guiding ESL students through the program. (see Table 9).

Table 7 pre-clinical placement outcome continuum.

Suboptimal Outcome	Optimal Outcome
CMO Pre-Clinical Placement Preparation	
ESL students lack confidence and struggle to apply knowledge in clinical placement. Facilitators lack the confidence in managing ESL students especially when early indicators show that the student is struggling	ESL students are prepared for clinical placement with confidence and have transferable knowledge and skills to take into placement Facilitators have the confidence to support students that are struggling.

Note: the outcome from Pawson CMO configuration.

4.3 Theme three-CMO Fostering cultural development for success.

Educators must prioritise their development of cultural awareness to accommodate the increasing enrolment of diverse students in nursing programs. Similarly, students need to strive to develop an understanding of cultures different from their own. Cultural development is a key aspect found in this realist synthesis for ESL success and training institutions need to adopt strategies that facilitate cultural development for both the clinical facilitator and the ESL student, while also respecting individual rights and fostering inclusivity. Overall, this CMO provides valuable insights into the complex

dynamics of cultural development and offers recommendations for fostering positive cultural change in nursing programs and teaching practices.

Table 8 CMO Fostering cultural development for educators and students to promote cultural growth among a diverse nursing student.

Context	Mechanism	Outcome
There is an unconscious bias towards ESL students when allocating preceptors and in clinical practice	Staff development and cultural competence training	To produce culturally safe students and facilitators

note Pawson's CMO configuration.

4.3.1 Context for fostering cultural development for educators and students to promote cultural growth among a diverse nursing student body.

Multiple studies in this realist synthesis showed that cultural differences and inadequate communication skills results in shyness (Choi, 2019; King et al., 2017; San Miguel & Rogan, 2015). This behaviour leads to ESL students taking an observational role that restrains them from participating in active learning opportunities (Adedokun et al., 2022; King et al., 2017; San Miguel & Rogan, 2015). Cultural world views impact participation in learning activities (Adedokun et al., 2022; Denham et al., 2018; San Miguel & Rogan, 2015), For example, with respect to people in authority it is considered rude to ask questions to people in authority, such as teachers or preceptors, and students do not want to appear unintelligent (Denham et al., 2018).

Traditional approaches to learning that ESL students have previously experienced, are often didactic in nature and students often prefer rote learning methods (Denham et al., 2018; Havery, 2019). Therefore, ESL students feel more confident with teaching methods such as lecture-based learning, use of textbook resources, and note-taking. There is high anxiety among ESL students with a pedagogical style of learning that promotes flipped classroom learning, and self-directed styles. As mentioned in a Denham et al study (2018), it was found that international students only understood approximately 20-30% of the content of lectures.

Students must gain the skills to engage effectively in problem-based learning, case studies, and other methods of interactive learning. These skills include strong critical thinking skills to analyse complex problems and develop innovative solutions (Adedokun et al., 2022; King et al., 2017; San Miguel & Rogan, 2015). ESL Students have the perception that it is important to perform nursing skills perfectly to meet the required standards. However, it may not always be feasible to achieve mastery in a time limited class or simulation environment (King et al., 2017; San Miguel & Rogan, 2015). This can increase their fear of making mistakes in a clinical environment, as ESL students feel they have not mastered the material in the class. Another challenge that ESL students face is navigating both the tertiary education system and the healthcare system of the country they are studying in (Denham et al., 2018).

Unconscious bias refers to biases and prejudices that individuals may have, without knowing of them. When assigning clinical placements to ESL students, facilitators need to have an awareness of any potential unconscious bias that may affect their interactions and teaching (Adedokun et al., 2022; Havery, 2019). This bias could stem from stereotypes or assumptions about the capabilities or language proficiency of ESL students. The way the clinical facilitator treats and assesses ESL students can vary, depending on the nursing program's specific paper or year of study. For instance, a clinical facilitator with a year one nursing student, might not prioritise addressing communication concerns, as they might believe the student has plenty of time to improve (Adedokun et al., 2022; Havery, 2019). Conversely, if a pre-registration student (third year) faces the same problem around communication, the clinical facilitator may take a stricter approach. Towards the end of the nursing program, if the faculty starts to address communication concerns, this can leave students confused about why it becomes a concern at such a late stage (Adedokun et al., 2022; Havery, 2019). As a result, students may repeat courses, request extensions, or must complete their final exams later.

ESL students in clinical practice also struggle with understanding the cultural nuances and expectations required of them in clinical environment (Adedokun et al., 2022; Denham et al., 2018; San Miguel & Rogan, 2015). They may encounter challenges in interpreting non-verbal cues, understanding patient preferences, and adapting to different communication styles. Several studies, including Adedokun et al. (2022),

Denham et al. (2018), King et al. (2017), and San Miguel & Rogan (2015), found that ESL students experience heightened anxiety when interacting with hospital staff. This anxiety is often a result of their lack of confidence in their language abilities, which leads to difficulties in expressing their needs or understanding medical instructions.

4.3.2 The mechanism for fostering cultural development for educators and students to promote cultural growth among a diverse nursing student.

Cultural diversity in nursing and nursing education has great value (Adedokun et al., 2022; Denham et al., 2018; Havery, 2019; Rogan & San Miguel, 2013). The findings of the included studies emphasise the significance of how cultural safety affects nursing interactions and the need for nurses being aware of and respecting the cultural norms, traditions, and practices of patients from different backgrounds (Adedokun et al., 2022; Denham et al., 2018; Havery, 2019; Rogan & San Miguel, 2013). This cultural awareness extends to the relationship between clinical educators and ESL students. Rapport building between ESL students and clinical facilitators is needed for effective communication and collaboration (Denham et al., 2018; Havery, 2019). To achieve cohesiveness, clinical facilitators must understand the cultural values, beliefs, and practices of ESL students to provide effective support (Adedokun et al., 2022; Choi, 2019; Choi & Brochu, 2022; Denham et al., 2018; San Miguel & Rogan, 2015). This includes being sensitive to their language proficiency level, as well as their unique communication challenges (Adedokun et al., 2022; Choi, 2019; Choi & Brochu, 2022; Rogan & San Miguel, 2013).

By being culturally aware, facilitators can create a supportive and inclusive learning environment that fosters the success of ESL students (Adedokun et al., 2022; Denham et al., 2018; San Miguel & Rogan, 2015). This understanding can help facilitators tailor their teaching strategies and materials to meet the specific cultural needs of ESL students, ensuring that they receive the necessary support to succeed in clinical settings. Being culturally responsive not only helps to establish trust between the students and staff, but also enhances the students' academic and clinical placement success (Adedokun et al., 2022; Denham et al., 2018; Havery, 2019; Rogan & San Miguel, 2013).

Transcultural nursing is a concept that can be applied to patient care by incorporating patients' individual beliefs and values into their healthcare plans. This approach involves active listening, involving patients in decision-making, and tailoring care to their cultural needs and preferences. The goal is to foster a collaborative and respectful partnership between healthcare providers and patients, ultimately improving patient outcomes and satisfaction. Both cultural awareness and transcultural nursing, emphasise the importance of cultural sensitivity and competence in healthcare (Adedokun et al., 2022; Denham et al., 2018; Havery, 2019; Rogan & San Miguel, 2013).

This theory can also be applied to ESL students. Using a transcultural framework and principles in education is beneficial for clinical facilitators, who want to better understand the cultural and linguistic needs of ESL students (Choi & Brochu, 2022). The way teachers approach students in the classroom culturally shows competence. Competent educators create a positive and inclusive learning environment where students feel valued and supported. They establish clear expectations, provide appropriate and challenging academic content, and use effective instructional strategies that cater to diverse learning styles. By demonstrating competence, teachers can inspire and empower students to reach their full potential academically, socially, and emotionally (Choi & Brochu, 2022). This approach is applicable to simulation and clinical placement, resulting in improved mental health and wellbeing for ESL students (Choi & Brochu, 2022), and when designing nursing curricula (Denham et al., 2018).

It is recommended that clinical facilitators undergo training to enhance their understanding of cultural competence and needs, to encompass factors such as understanding customs, beliefs, learning, and addressing the staff's ethnocentric cultural bias (Denham et al., 2018; Havery, 2019). The training would educate staff members on the significance of cultural diversity and the detrimental effects of ethnocentrism on both individuals and the organisational structures involved, such as the clinical environment and the tertiary education facilities (Denham et al., 2018; Havery, 2019). They would also learn strategies for promoting inclusivity and embracing different cultural perspectives via interactive activities, case studies, and

group discussions, that would include self-reflection (Frazer et al., 2021; Havery, 2019; Markey et al., 2021).

When working with ESL students, clinical facilitators face the challenge in managing time. This is because ESL students require additional time to process information (Adedokun et al., 2022; Choi & Brochu, 2022; Donnell, 2015). In the clinical setting, ESL students felt that clinical facilitators did not allow enough time to support their development (San Miguel & Rogan, 2015). Similarly clinical facilitators feel extra pressure when supporting ESL students in their student management load. Therefore, additional time is needed when working with ESL students.

4.3.3 Outcomes for fostering cultural development for educators and students to promote cultural growth among a diverse nursing student body.

The aim of this CMO is to have clinical facilitators who have cultural knowledge, develop a more comprehensive grasp of the cultural values, beliefs, and practices of ESL students. As a result, ESL students will feel secure and have their cultural needs met, leading to increased engagement in the nursing programme and greater success in both academic and clinical aspects of the program (see Table 9).

Table 9 Fostering cultural development for educators and students to promote cultural growth among a diverse nursing student outcome continuum.

Suboptimal Outcome	Optimum Outcome
MRO Pre-Clinical Placement Preparation	
ESL students are unable to complete their clinical placement	Students successfully completing their clinical placement and meeting learning objectives.
Unsafe nursing practice	Safe nurse practice
Unable to meet learning objectives and competencies	Able to meet learning objectives and nursing competencies.
Linguistically and culturally unsafe acilitators.	Linguistically and culturally responsive teachers.

Note: the outcome from Pawson CMO configuration

This chapter revealed the findings of the study using Pawson's CMO configuration and highlighted three key CMO configurations. The next chapter will combine the three CMO configurations and form a middle range theory, which will be discussed, to improve success of ESL students attending nursing education. The following chapter will also discuss the strengths and limitations of this review and come up with recommendations that could be shared in professional development days and education, to improve the success of ESL's who engage with education learning, to become registered nurses.

Chapter 5 Discussion

This realist synthesis sought to investigate the contexts ESL students experience during their nursing training and establish strategies that help ESL students succeed in pre-registration nursing programs. This chapter will reveal the midrange theory and discuss the elements of the theory in detail. This chapter will also disclose the recommendations and limitations and conclusion of the study.

5.1 Answering the aim of the study

The realist synthesis incorporated a comprehensive search of the literature to find articles that could identify what strategies best assist ESL students entering nursing programmes, to succeed. Five databases were searched: CINAHL, MEDLINE, PubMed, Scopus and Google Scholar, resulting in 10 articles. Each research article was assessed for rigor and relevance using the MMAT tool. Thematic analysis (Braun & Clarke, 2019), was used to identify three key themes. Pawson's CMO configuration was used to categorise the extracted themes into context, mechanism, and outcomes. These three CMO configurations will be used to create a mid-range program theory.

5.2 Summary of themes

Three configuations of CMO have been identified as the most significant in providing context and mechanism for the success of ESL students in pre resgistation nursing programs These were: communication complexity, which focuses on the use of English language tools to enhance ESL students' understanding of written and verbal English. The second theme is self-efficacy, which highlights the difficulties of both nursing ESL students and clinical facilitators, working together to get ESL students through the programme. The essential key element of the third CMO is the development of cultural understanding of the ESL student

5.3 Developing a theoretical framework

Pawson's realist synthesis was a valuable framework for this review, as it allows for a comprehensive understanding of the relationship between specific contextual factors, mechanisms, and observed outcomes in the studies to develop a mid-range programme theory. This mid-range programme theory seeks to explain the intricate balance between specificity and generality in understanding the causal relationship among the three themes and addressing the research question. Please see (Figure 3) to view diagrammatically the mid-range programme theory developed by combining

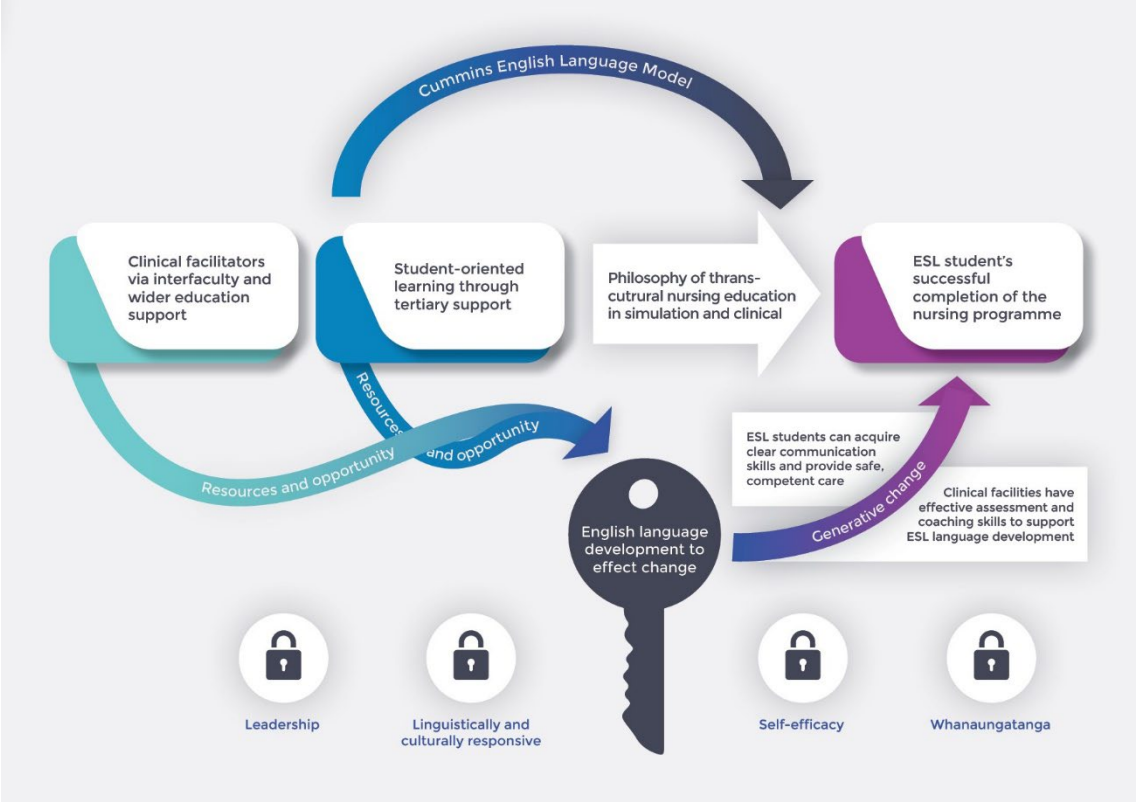
the CMO configurations. The following discussion will explore in more depth this generative causation and give meaning to the relationships.

What works: ESL students who have English language support and enhanced leadership opportunities and clinical facilitators delivering teaching that is linguistically and culturally competent, results in high self-efficacy for ESL students.

For whom: Students enrolled in a pre-registration nursing programs who have English as a second language (ESL).

And why: With more migrants moving to English speaking countries and many taking up nursing as a profession, it is important to find the most effective ways to support student success. All nursing students are important to contribute to filling nursing shortages and particularly ESL students who are also reflective of the diverse patient population.

Figure 3 Generative causation for increasing student success in completing their preregistration nursing program.



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Discussion of the theoretical framework

The mechanism that is central to this theoretical framework, is the need for ESL students to have English language skills (as indicated by the key in figure 3). It is important to incorporate clear language development into teaching and learning activities, to have expert language teachers to review curricula, and additional supports need to be available. This includes offering extra English classes, running clinical speaking programs, and speech workshops. These mechanisms improve students' understanding of English and ultimately help them succeed in their nursing training. Therefore, nursing training programmes should explore alternative options to meet the needs of ESL students.

Being early in identifying those that need extra support, is essential. Then once a need is identified, offering extra activities such as clinical speak programmes that can boost ESL's language acquisition, are beneficial when they are offered in a timely manner (Adedokun et al., 2022; Choi, 2019; Choi & Brochu, 2022; Pool et al., 2019). For example, scheduling a program at least two weeks in advance of clinical placement is

beneficial as this provides enough time for ESL students to prepare for clinical placement (Adedokun et al; 2022; Choi, 2019; Choi & Brochu, 2022).

This realist synthesis found that facilitators spend more time supporting ESL students during their clinical placements, than on non-ESL students (Henry, 2023). Extra time is therefore needed, as it promotes ESL's understanding, confidence, and ability to make informed decisions-ultimately enhancing learning experiences and leading to their competent development as nurses (Adedokun et al., 2022; Choi & Brochu, 2022; Havery, 2019; Lin et al., 2021). This was corroborated by Henry (2023), who found ESL students benefit from clinical facilitators who take the time to demonstrate and offer feedback, during their clinical placements and when learning new skills (Henry, 2023). Therefore, when assigning nursing students to clinical facilitators on clinical placement, it is important to consider providing the facilitators with additional time. By providing extra time, facilitators can engage in meaningful conversations, clarify concepts, and address any language-related challenges that ESL students may encounter (Adedokun et al., 2022; Choi & Brochu, 2022; Havery, 2019;).

It is important that teaching linguists are used to compartmentalise complex information and remove or interpret colloquialism from educational material for ESL nursing students (Garone et al., 2020; Havery, 2019). These specialised teachers can collaborate with nursing academic staff to review and revise the students' goals and objectives, ensuring clarity and understanding (Garone et al., 2020; Havery, 2019).

Tertiary educational institutions often have limited resources and may face challenges in finding linguistic teachers (Havery, 2019). Indeed, busy workloads, coordinating schedules between linguistic teachers and nursing academic staff for content review could be difficult. If engaging with linguistic teachers from external institutions, additional, unaccounted costs may need to be considered within the budget (Havery 2019). Other barriers exist when providing extra activities, ESL students may not wish to engage in extracurricular activities such as clinical speak programmes, as often ESL students are already managing a demanding academic workload, balancing challenges in handling their coursework, clinical duties, and paid work commitments throughout the nursing programme. ESL students may also feel anxious and worried that domestic students might see their knowledge as insufficient if they engage in extra programs.

These obstacles may explain the low enrolment numbers of ESL students in clinical speaking programs (Adedokun et al.,2022, Choi,2019; Choi & Brochu, 2022).

As mentioned above, early identification of struggling ESL students is important (Adedokun et al., 2022; Kelton, 2014; King et al., 2017; Rogan & San Miguel, 2013; San Miguel & Rogan, 2009). Clinical facilitators and faculties need to have tools to assess students' capabilities and levels of English language acquisition and comprehension, and then to follow through with referrals for additional support if needed. There are multiple assessment tools to assess English language skills. Findings from this study provide support the utilisation of the Cummins English language model, as depicted in the overarching arrow at the top of our generative causation model (Figure 3).

The Cummins model is valuable in comprehending the cognitive process that occurs when ESL students learn English as a second language (Cummins et al, 2021; Darmi, 2014; Gajewski, 2022). It is useful in understanding the unique learning challenges faced by ESL nursing students. By familiarising themselves with models like Cummins language model, means that nursing programs and facilitators can adjust their lesson plans to cater to the needs of ESL students (King et al., 2017). The model emphasises the importance of building upon students' first language skills, promoting linguistic and cognitive development, as well as cultural identity and pride (Cummins, 2012; Wedin, 2021). Overall, the Cummins' language model offers a comprehensive approach to supporting English language learners and maximising their academic potential. It also helps educators recognise the importance of ESL students in mastering social conversational skills, through face-to-face interactions as a foundational step before delving into academic language comprehension. By using a model such as Cummins model, educators can provide support and instruction to students, equipping them with the essential language skills to succeed academically (Crawford &Candlin, 2013b).

An interesting and somewhat anticipated finding from this realist synthesis was the significant positive impact that being involved in leadership can have in ESL student nurses' success, and how participating in leadership activities can have a knock-on effect in improving self-efficacy and English language development (see leadership padlock at the bottom of figure 3). Many authors in this realist synthesis advocated for leadership to be a central mechanism to student success (Adedokun et al., 2022; Choi,

2019; Denham et al., 2018; King et al., 2017; San Miguel & Rogan, 2015). Foli et al. (2014,) found that nursing students must acquire leadership skills to complete their nursing education. Students can apply leadership qualities to enhance their academic learning and support their fellow students (Hsieh et al., 2022). Akerjordet (2002) also advocated for the significance of ESL nursing students improving their leadership abilities and taking control of their learning journey.

Leadership may often be viewed as something only senior leaders do. However, from a New Zealand nursing context-The Nursing Competency Framework that governs practice set out by the Nursing Council, often refers to leadership. For example, the competencies refer to patient advocacy, delegation of supervision, and collaboration with the healthcare team (NCNZ 2022). Leadership skills are often developed in the clinical environment and include delegating tasks or care, advocating for patients, and supporting colleagues (Ross et al., 2018; Sharpnack et al., 2013). ESL students who possess leadership qualities, such as advocacy and the ability to collaborate effectively as team players, contribute to the delivery of high-quality and compassionate care in clinical settings (Aydogdu, 2023; Jack et al., 2022). The essential skills for leadership include planning, organising, problem-solving, consulting, delegating, building relationships, networking, supporting, and motivating. Nursing students should have leadership options to foster personal growth and academic development (Hsieh et al., 2022). Leadership is also important when engaging with staff in a nursing facility and clinical setting (Barry et al., 2016; Lapidus-Graham, 2012).

The professional development of students' leadership skills is unique to every individual and is influenced by various contextual factors. An individual's personality traits, such as confidence and empathy, can enhance their leadership abilities. Lord et al. (2013), argue that for leadership to be successful, it is vital for the organisation to cultivate a consistent culture that encourages and supports the development of leaders.

Another mechanism that is important to our midrange theory for the success of ESL students in nursing programmes is Whanaungatanga (see Figure 3, padlock at the bottom of the diagram). Whanaungatanga is the connection people make with each other that links together to build meaningful relationships (Wright & Heaton, 2021).

The relationship between students and facilitators is one important example of whanaungatanga, as this critical relationship fosters a sense of belonging through experiences and collaboration. In our generative causation model in (Fig 3) this interconnectedness between the clinical facilitator and student, is highlighted on left-hand side of the diagram.

Through experiencing whanaungatanga ESL students can develop confidence, as this concept embodies connection, collaboration, and support (Coleman, 2022). Another fundamental element of Whanaungatanga is that ESL students need to feel connected to the tertiary institute they are enrolled in, resulting in a sense of community, again providing an increase in confidence and self-worth, and encouraging more engagement with their academic work (Coleman, 2022).

Engaging in mentorship programmes and support groups can benefit ESL students in nursing programmes by providing them with a sense of belonging and support (Adedokun et al., 2022; Brewer et al., 2023; Choi, 2016; King et al., 2017; Metzger et al., 2020). Other mechanisms identified in this realist synthesis that can assist with this sense of belonging, were mentorship programmes between 1st and 3rd years cohorts, support groups and newsletters. Despite barriers such as lack of time for extracurricular activities, participating in these activities enables students to connect with peers who share similar experiences, receive guidance from mentors, and improve overall well-being and academic success (Buckley & Lee, 2021). These activities also help develop communication skills and leadership abilities among ESL students, as they take on leadership roles and learn important nursing skills. Being actively involved in these activities, also empowers ESL students to serve as cultural ambassadors and share their unique perspectives with their domestic peers, promoting cultural understanding (Brewer et al., 2023; Lewis & Bell, 2020; Purmensky, 2020). It is important that nursing programmes create opportunities for these activities to facilitate the integration of ESL students and foster a supportive community. Extracurricular activities are well-aligned with developing conversational skill acceleration for ESL students when they engage with peers and colleagues, particularly outside of the nursing school environment (Hansen & Beaver, 2012; King et al., 2021).

The findings of this realist synthesis emphasise the importance of cultural awareness for clinical facilitators working with ESL students (Adedokun et al., 2022; Choi & Brochu, 2022; Denham et al., 2018; Havery, 2019; King et al., 2017; San Miguel & Rogan, 2015). The increasing numbers of ESL students enrolling in nursing programmes and an increasingly diverse nursing workforce, mean recognising and being responsive to cultural diversity as an essential aspect of nursing practice. Nursing registration boards prioritise cultural competence worldwide. The Health Practitioners Competence Assurance Act (2003) and the New Zealand Nursing Code of Conduct (2012) mandate that students show their safety and competence in their nursing programme. To meet nursing competencies, ESL students must possess whanaungatanga and communication skills, to engage in small talk and build therapeutic relationships with both patients and the health care team. ESL students demonstrate self-efficacy by having confidence in their nursing ability when interacting with patients in a culturally safe way.

Understanding the cultural background of ESL students is crucial, as it can significantly affect their language learning process. Cultural differences can influence communication styles, social interactions, and educational expectations (Adedokun et al., 2022; Choi & Brochu, 2022; Denham et al., 2018; Havery, 2019; King et al., 2017; San Miguel & Rogan, 2015). Clinical facilitators need to be knowledgeable about the cultural norms, values, and beliefs of ESL students to create a supportive and inclusive learning environment (Adedokun et al., 2022; Havery, 2019). This cultural awareness helps foster understanding, empathy, and effective teaching strategies tailored to the specific needs of ESL students. Connecting with non-ESL students can also benefit ESL students by providing opportunities for natural language practice, cultural exchange, and a sense of belonging within the nursing school community.

The recognition and integration of incorporating cultural knowledge into nursing education is gradually taking place, but more research is required in this field. New Zealand nursing programmes could overcome these obstacles by considering providing clinical facilitators with resources and training to effectively support ESL students, such as cultural sensitivity training and language support tools (Adedokun et al., 2022; Dudas, 2018; Lin et al., 2021). By taking these factors into account, nursing training

programmes can create an inclusive and supportive learning environment that caters to the diverse needs of all students.

Nursing programmes in New Zealand honour Te Tiriti honouring (NCNZ 2023c), and it is essential that clinical educators role model cultural safety to students. It is also vital that clinical educators respect the beliefs, values, and practices of different cultures to provide culturally sensitive and effective education. Incorporating cultural competence into nursing education means that students are better equipped to receive holistic education that meets the unique needs of each student, regardless of their cultural backgrounds. This approach can also help reduce education disparities and inequities and improve student success by promoting better understanding and collaboration between clinical facilitator and students from diverse backgrounds. This goes beyond just benefiting ESL students, but also New Zealand's high priority groups such as Māori and Pacifica (Brottman et al., 2020). Overall, the inclusion of cultural competence in nursing education is essential for delivering high-quality, student-centred education in a diverse education landscape.

For ESL students to become leaders, they must overcome barriers such as fear of appearing uninformed and need to address subconscious racial prejudices (Mitchell, 2023). For this to be achieved, it is important to foster psychological safety, educate oneself on various cultures, prioritise effective communication and active listening. By actively working on these skills, leaders can create a more inclusive and supportive environment (Chicca & Shellenbarger, 2020; O'donovan & Mcauliffe, 2020).

Various cultural factors affect teaching and learning practices for clinical facilitators and ESL students (Huerta, 2023). Hence, clinical facilitators play a crucial role in advocating for ESL students' learning by utilising Leininger's transcultural nursing theory. (Leininger & McFarland, 2006), as a theoretical framework to underpin nursing education (See arrow in Figure 3). This framework will assist clinical facilitators in developing a more open-minded approach towards cultures beyond their own. The transcultural educational philosophy as outlined above, emphasises the need for effective communication in a multicultural and diverse society. It recognises that individuals from different cultural backgrounds bring unique perspectives and experiences to the learning environment. Therefore, clinical facilitators who use both

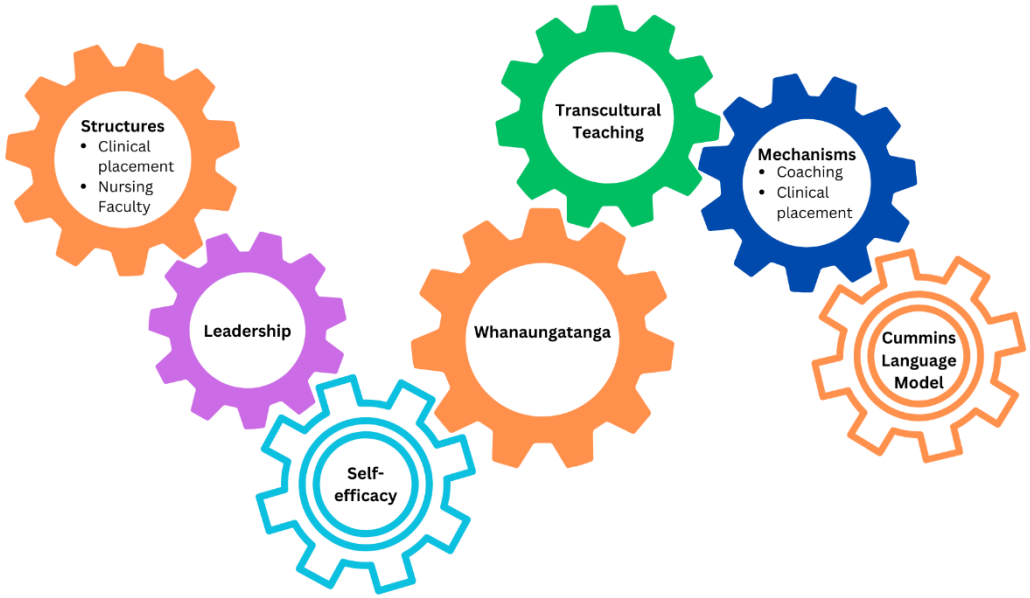
the transcultural educational philosophy and the Cummins model, strive to promote language development, multilingualism, cultural awareness, and equitable educational opportunities for all students.

This realist synthesis found that self-efficacy was lacking between both groups (clinical educators and ESL students) during their nursing training journey (see Figure 3 self-efficacy padlock). Self-efficacy is described by Bandura, (1977) as the belief in one's future capabilities to accomplish a task, shaped by personal perceptions, not actual ability. Clinical facilitators need to have a comprehensive understanding and confidence in the entire programme and it is essential for them to effectively address concerns and assess ESL students. Without these skills, students may progress in the nursing programme with poor communication with patients, health care staff and clinical facilitators. While clinical facilitators are comfortable assessing clinical skills, they often neglect to address communication issues unless they pose a safety risk. Therefore, it is imperative that clinical facilitators have the self-efficacy to prioritise the assessment and support of students' communication skills, even if they may not pose an immediate safety risk. They can achieve this by attending in-service sessions focused on language development and understanding theories such as the Cummins model. It is essential for facilitators to have a tool or guideline that provides direction in supporting students' professional communication skills and their ability to engage with patients.

Confidence in academic abilities and utilising them for problem-solving are key traits for self-efficacy among nursing students, as noted by Hwang and Oh (2021). According to Mohamed & Ahmed 2022 academic self-efficacy is defined as students' ability to persist in their academic endeavours. Increased self-reliance is observed in students who develop self-efficacy (Berdida, 2023). Nursing students, with self-efficacy exhibit a heightened aptitude for critical thinking in complex situations (Guerrero & Attallah, 2022; Jeffreys, 2022). The autonomy of students in clinical practice relies on self-efficacy (Mohamed & Ahmed, 2022). Motivation is a key contributor to academic self-efficacy, and must be sustained alongside strong self-directed learning skills and coping mechanisms (Hwang & Oh, 2021).

Below is a diagrammatic summary of the interrelationship between the main findings. Each is reliant on the other for ESL success in nursing programmes.

Figure 4 Concepts of findings



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5.4 Strengths and Limitations

The advantage of conducting a realist synthesis, is that it is more flexible and iterative compared to traditional systematic reviews (Hewitt et al., 2014). The realist synthesis emphasises the importance of comprehending the unique ways in which programs function for individuals under diverse circumstances and at different points in time (Rycroft-Malone et al., 2012). For example: understanding the complex learning requirements of ESL students during their nursing training, means that recommendations around the support and guidance needed from various members of the educational team, can be made.

Realist synthesis offers a comprehensive perspective on the success of ESL students in nursing programmes by combining qualitative and quantitative data. Qualitative data, such focus groups, reveal the experiences, perspectives, and challenges faced by ESL students, enabling researchers to identify barriers and facilitators to their success. Quantitative data, such as student performance metrics and completion rates, provide objective measurements of outcomes and the effectiveness of interventions. By integrating both types of data, a realist synthesis uncovers the underlying mechanisms

and contextual factors that influence the effectiveness of support strategies (Pawson, 2002; Wong et al., 2013). This allows educators and policymakers to make informed decisions and design targeted interventions to enhance ESL students' completion rates in nursing programs (Pawson, 2002).

Limitations of doing a realist synthesist also exist. For example, it is essential to maintain the right level of abstraction to ensure that the synthesised findings remained relevant in various contexts and there is a need to think flexibly to effectively handle complex situations. Inadequate synthesis of data can lead to oversimplification or the neglect of vital concepts in the details, both of which hinder the ability to make informed decisions and inform evidence-based educational practices.

There were no studies specifically addressing ESL nursing success in NZ, thus limiting the application of the realist review data to the context of NZ. However, there were several studies conducted in Australia that closely align with the context of NZ.

5.5 Recommendations.

Implementing change in the way that nursing schools interact and assist ESL students to succeed, means that innovative philosophy and tools need to be put in place for success. A professional development day is recommended to provide education to clinical facilitators on the approaches that can assist success, and an additional professional development day is recommended for ESL students. Equipping both groups with these tools means that each groups' self-efficacy will improve further enhancing successful outcomes for ESL students in completing their nursing studies. Below are recommendations of what a clinical facilitator professional development day may look like based on this realist synthesis.

5.6 Staff's Professional development in the nursing programme

- Educate staff on the importance of the relationship between the clinical facilitators and ESL for success (Whanaungatanga).
- Educate staff on the Cummins Language Theory. This valuable resource not only enhances an understanding of language development but in creating meaningful and engaging learning experiences that cultivate a high level of English proficiency among ESL students.

- Reflection on any biases and prejudices towards cultures outside our own, working towards becoming more culturally competent clinical facilitators.
- Provide education on cultural competence and transcultural theory.
- Emphasise the need to evaluate students' reading comprehension and English pronunciation skills as early as possible by using a transparent assessment facility such as language development tools. Acknowledging Cummins second language acquisition tool and learning how to develop skills to assess students' conversational English and professional language in simulation rooms.
- Explain the importance of providing ESL students with clear expectations and learning objectives and if possible, to get written instructions and tests reviewed so that any confusing meaning that can result in cultural misinterpretations are removed.
- Understanding the importance of providing more time to interpret information.
- Stress the benefits of simulation using standardised patients or high-fidelity simulation.

5.6.1 Students' professional development in the nursing programme

Providing ESL students with professional development would also be advantageous. A development day could include these mechanisms:

- Implement peer mentoring programs to provide guidance and support.
- Encouragement of extra-curricular activities and leadership training
- Encourage ESL students to practice English outside the classroom, such as taking part in peer mentoring, public speaking and other leadership opportunities.
- Use of assessment tools so ESL students can self-evaluate their progress.
- Education on the availability of taking part in additional workshops including clinical speaking programs.
- Provision of English coaching guidelines or English development frameworks.

5.6.2 Suggestions for future research

- Implementing developmental days with a pre and post qualitative study to evaluate outcomes.

- Surveying facilitators and ESL students on what they think works and which interventions they think could be implemented to help the success of ESL students.
- Doing a quantitative study to evaluate successful completion outcomes and satisfaction of ESL's nursing education experience.
- After applying the above interventions, then doing a longitudinal study researching how students progressed over time. This could be after a year and later at five years after their first year after graduation, examining whether there were any challenges in leadership opportunities and increased self-efficacy and communication.
- Studies showing how ESL students learn and develop English within a New Zealand context.

5.7 Conclusion

With rates of migration to English speaking countries increasing, it means more people are enrolling in nursing programmes that have English as a second language. English as a second language speakers, help establish a diverse nursing workforce. They are a valuable workforce resource to match the population demographic, that now reside in many Western countries where English is the dominant language. However, catering to the needs of ESL students is often non-existent and ESL students are expected to keep up with the curriculum and to succeed, often without much understanding and support from education providers on how to make their journey more successful. This realist synthesis used Pawson's CMO configuration which identified three broad CMO configurations; communication complexity, cultural development, and self-efficacy from which we devised a generative causation model highlighting the key factors for success. These key factors included focusing on English skill development, acknowledging the symbiotic relationship between clinical facilitators and ESL students, using both the Cummins Language theory and transcultural teaching models to help guide linguistic and culturally safe support. It was also significant in providing leadership opportunities, embracing whanaungatanga and ultimately enhancing self-efficacy for both the ESL students and the clinical facilitator. Because all these factors are interlinked and interconnected, we suggest delivery of professional development days to share these findings with both ESL students and clinical facilitators. Then we

may attempt to implement many of the mechanisms included in the recommendations for ESL success in undergraduate nursing programmes.

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Appendices

Appendix A Summary of Included Articles including MMAT

Title & Authors	Aim	Methodology & Sample Size	Findings Summary	MMAT -Critical Appraisal Score
English-as-a-second language baccalaureate prelicensure nursing students' perception of simulation experiences (Adedokun et al 2020)	Investigating the real-life encounters of BSN students with English as a Second Language (ESL) in simulation settings.	Qualitative— phenomenological design BSN students who self-identified as ESL. n=9	What factors contribute to the improvement of learning in simulation environments for ESL nursing students? These factors include active participation, adaptive strategies, interconnectedness among individuals, and support from both peers and faculty. What challenges do ESL nursing students face when learning in simulation environments? These challenges include language barriers, cultural obstacles, vulnerability, and performance expectations.	Qualitative MMAT 5/5
Continued Influence of an English-as-an Additional-Language Nursing Student Support Group (Choi, 2019)	To further examine the ongoing influence of participating in a support group for nursing students who speak English as an additional language.	Qualitative— hermeneutic phenomenology BSN students who are members of the ESL support group and have a first language other than English. n=12	In terms of the value and effectiveness of an ESL Nursing Student Support Group, the study identified seven themes, with balance being one of them.	Qualitative MMAT 5/5

English-as-an-additional-language nursing student support group: Student leadership and engagement (Choi & Brouch, 2022)	To investigate how student engagement and leadership opportunities affect the academic success of English as an ESL student.	Qualitative— hermeneutic phenomenology Nursing students who are pursuing their postsecondary education in a language other than their first. n= 26	When analysing the influence of student engagement and leadership opportunities on the success of EAL students, four major themes come to light. These themes underscore the importance of these opportunities and their impact on EAL student achievement.	Qualitative MMAT5/5
Academic success of undergraduate nursing students (Denham et a 2018)	To determine how undergraduate nursing students, especially those who are ESL learners, express their academic achievements.	Quantitative Survey undergraduate nursing students n = 868	Students who had a prior degree were at a higher academic course level and felt confident in their communication skills and experienced statistically significant improvements in perceived student success. Faculty roles that impact students' perceptions of academic success	Quantitative MMAT 4/4
Professional development for teachers of nursing students for whom English is an additional language: A reflection on practices (Havery, 2019)	The goal is to equip nursing academics with effective strategies for teaching core nursing content to ESL students.	Qualitative—reflective practice Nursing faculty and a language Linguistics specialist teacher n=5	Educators face three main challenges: effectively teaching the subject content, accommodating diverse learning styles of students, and lacking confidence in teaching ESL classes.	Qualitative MMAT 5/5

Clinical Coaching e An innovative role to improve marginal nursing students' clinical practice (Kelton, 2014)	To explore coaching strategies for the clinical coach role that can effectively facilitate the development and improvement of nursing practice for marginalised or at-risk students.	Quantitative Survey n=188 3rd year nursing students	Coaching practice prepares ESL students for clinical practice holds great significance. Debriefing plays a crucial role in ESL instruction as it allows students to reflect on their learning process and enhance their teaching techniques.	Quantitative MMAT 4/4
Fostering academic success among English as an additional language nursing students using standardised patients (King, 2017)	To investigate how standardised patients can contribute to the academic success of nursing students who are ESL	Qualitative—focus groups BSN students n= 35	When using standardised patients in simulations for EAL students, there are seven key ideas to consider: comfort communication, psychomotor skill development, language acquisition, change in attitudes, debriefing, and learning takes time.	Qualitative MMAT 5/5
You find yourself.' Perceptions of nursing students from non-English speaking backgrounds of the effect of an intensive language support program on their oral clinical communication skills (Rogan et al, 2013)	The impact of a language support program on the improvement of their oral clinical communication skills before ESL students first clinical placement	Qualitative descriptive interpretive ESL nursing students before their 1st placement n=15	Identifying ESL students who have difficulty communicating in English is crucial for their success in the nursing programme. It is important to allocate dedicated time to improve their communication skills, ensuring that ESL students do not feel afraid of making mistakes or failing.	Qualitative MMAT 5/5

Assessing students' English language proficiency during clinical placement: A qualitative evaluation of a language framework (San Miguel & Rogan, 2015)	Developing guidelines to assist clinical facilitators in evaluating and providing support for the English language proficiency of ESL nursing student.	Qualitative—focus groups experienced facilitators n=8	Guidelines are a tool for coaching and assessing ESL students offering support and aiding their understanding of the expectations placed on them.	Qualitative MMAT 5/5
A Correlational Study of a Reading Comprehension Program and Attrition Rates of ESL Nursing Students in Texas (Donnell, 2015)	Investigate the relationships among ESL, a program designed to enhance reading comprehension, and the rates at which nursing students leave their studies.	Qualitative—longitude correlational undergraduate nursing students in Texas at the end of the first year n= 3,258	Investigate the characteristics of ESL students that contribute to their increased risk of success in the nursing program.	Qualitative MMAT 5/5