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The Long-Term Impact of Studying Abroad on International Students' Change and Self-Development: A Systematic Literature Review.

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### Abstract

This research aims to synthesize existing literature on the long-term impact of studying abroad on international students' change and self-development and to broaden knowledge about the sustainability of study abroad outcomes following return. This research was conducted between 2018 and 2020. We used a narrative synthesis approach and identified ten studies. The SLR results were presented based on acculturation theory by discussing the outcomes and mechanisms underlying change and self-development over time. The study also discovered several gaps in the existing body of research. First, none of the studies examined whether specific changes occurred after students returned home; second, we discovered a limited sampling of diversity in terms of home country and age; and third, few studies met pre-specified quality standards. Furthermore, the study proposes a new conceptual framework to test and extend the acculturation theory and help future research investigate the long-term impact of studying abroad on the international community over time.

*Keywords:* longitudinal, international students, studying abroad, change, self-development, systematic literature review

## The Long-Term Impact of Studying Abroad on International Students' Change and Self-Development: A Systematic Literature Review.

### 1. Introduction:

Every year increasing numbers of students travel abroad to study with the expectation that they will gain new experiences, enriched opportunities and a career advantage. As the demand for international education has seen increases year-on-year, with close to five-million international students in 2014 and a projected increase to eight million by 2025 (ICEF Monitor, 2017), research has sought to understand the international student experience. To date, the international education literature has given most of the attention to students' experience during their time studying abroad, such as their academic learning difficulties, cultural shock, and psychological issues associated with students' adjustment (e.g., Andrade 2006; Carlson and Widaman 1988; Hutteman et al. 2015; Lombard 2014; Samuelowicz 2006).

While it's critical to comprehend what can be done to enhance students' experiences abroad and make sure they realize their full potential, it's equally crucial to comprehend the advantages studying abroad offers them once they graduate. There are considerable personal, social, and financial expenses associated with studying abroad for students, their families, and frequently governments. As a result, it's critical that we comprehend not only these costs but also the outcomes that are achieved, who benefits from them, and under what conditions. The literature on international education and intercultural studies has recently become interested in the long-term advantages of studying abroad for individuals, groups, and society. The long-term effects of studying abroad on students' personal, professional, and academic lives were examined by the Institute for International Education of Students (IES) (McMillan and Opem, 2002). With graduates from all IES Abroad programs, the institute conducted the largest quantitative survey of study abroad graduates (1950-1999). According to the graduates who responded to the survey, studying abroad has educational advantages as well as opportunities for cultural development, career impact, and personal development. The study's author drew attention to the lack of research on the personal development of international students, particularly in terms of enhancing their employability skills (McMillan and Opem, 2002). Potentially galvanised by the IES report, a number of studies have subsequently attended to the benefits of the study abroad experience on students' personal development, including problem solving skills (e.g., Cho and Morris 2015), intercultural competence (e.g., Ramirez 2016), self-discovery and recognition (e.g., Brown and Brown, 2009), personality development (e.g., Niehoff, Petersdotter, and Freund 2017; Zimmermann et al. 2013) and high self-efficacy (e.g., Ang et al. 2007).

There are numerous factors that encourage students to pursue their education abroad, including a lack of domestic resources in certain subject areas, the perceived academic advantage of the host institutions, and the status of a foreign degree (Cummins 1993, cited in Varghese, 2008). However, the desire to benefit from learning about and experiencing a different culture has led to the creation of numerous government scholarships and encouraged a large number of people to pursue their education abroad. However, for many individuals they lack the acknowledge that studying abroad experience go beyond getting the degree as it is considered an experiential learning experience that leads to greater personal and professional benefits. Thus, having the knowledge of what are the expected benefits of study abroad experience and how to attain these benefits will help the students to maximise the benefits of their study abroad experience. The wider context of studying abroad is extremely important because a large number of international students are supported by their government

as a significant investment, and they are expected to put what they have learned abroad into practice and apply it to improve domestic systems, increase knowledge, and promote social change (Altbach and Engberg 2014).

As a result of knowing what to expect from their study abroad, graduates can help focus their attention on educating their future students about the expected benefits of study abroad, how to achieve these benefits, and how to help put strategies in place to support the long-term sustainability of these benefits. Understanding the benefits and results of study abroad may thus aid in recognizing them and identifying the processes that facilitate or hinder them. However, further research should be conducted to determine whether the anticipated benefits or outcomes are sustained following return. As a result, it is critical to explore the long-term influence of study abroad on international students' personal development and change. As a consequence, the purpose of this study is to synthesize existing knowledge and to realize the available data concerning the long-term impact of study abroad on the change and self-development of foreign students.

This study will help to explore what has been done on this topic of interest, including what outcomes have been examined, what research design, data collection, and measures have been used, and which theories have informed their works, as well as to understand the weaknesses and limitations of their studies. In addition, the goal of the systematic literature review is to develop a conceptual framework of the long-term benefits of acculturation in order to overcome the limitations of previous research in the field and to expand the acculturation model (Ward, Bochner and Furnham, 2001) to include the impact of home-country transition on the perceived outcomes of studying abroad.

### 1.1. Overview of the model of accumulation process (Ward, Bochner and Furnham, 2001)

A number of theoretical foundations have led the development of this framework, including the work of Lazarus and Folkman (1984), the model given by Berry (1994), and Furnham and Bochner's theory and research on culture learning (1986). The framework integrates a stress and coping framework as well as culture learning perspectives on acculturation, investigating the psychological and sociocultural results of cross-cultural adaption, as well as macro and micro level factors as predictors of sojourners' adjustment and outcomes. This framework also describes cross-cultural transition as life-altering experiences including multiple unexpected shifts and an unfamiliar intercultural contact. As a result, these experiences may be seen as exciting, difficult, or confusing, leading to learning and growth through good management and dealing with new life events and stressful situations. These impacts, depending on the person's theoretical ideas, might result in severe stress or a lack of social skills. Personal and environmental elements in both circumstances need contemplation and action, involving cognitive, behavioral, and emotional reactions, resulting in stress management as well as the acquisition of culture-specific abilities.

Acculturation theory emphasises the significance of both macro-level and micro-level traits. The macro-level includes the societies of settlement (the host nation) and origin (the home country). Socio-political and demographic aspects are notable elements. Personal qualities and the situational characteristics, on the other hand, make up the micro-level characteristics. Although environmental variables include language competency, personality, cultural distance, and acculturation strategies, personal qualities include friendship networks, cultural distance, intergroup contacts, and social support. By taking into account all of these elements, this model will be very useful for studying the acculturation process. Furthermore, by

predicting the psychological and sociocultural mechanisms of intercultural adaptation, it ensures the incorporation of key characteristics of contemporary social identity work, as well as the accompanying theory and research.

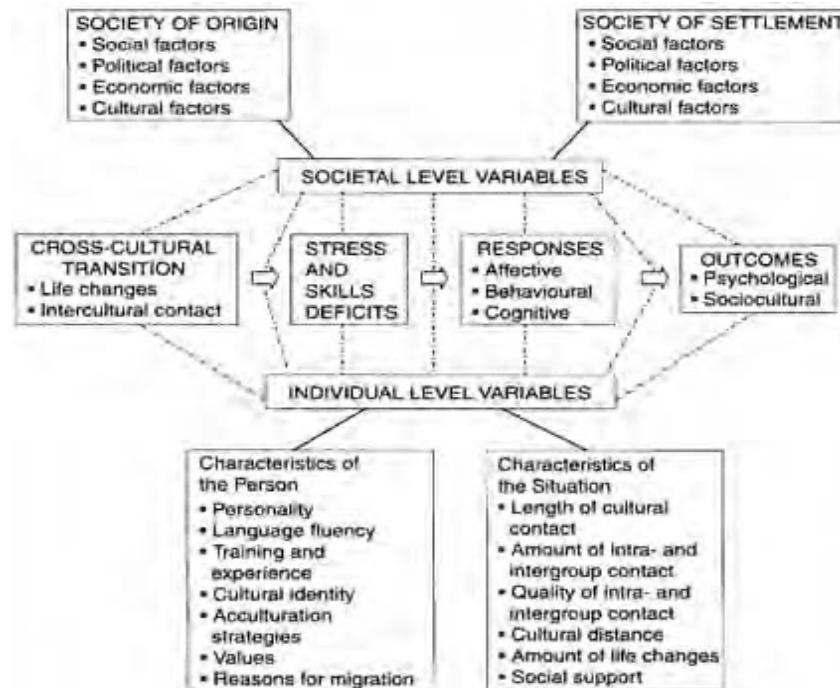


Fig 1. The acculturation process (Ward, Bochner and Furnham, 2001).

## 1.2. Research questions:

Based on an initial review of the literature and the model of acculturation process (Ward, Bochner and Furnham, 2001), five research questions were identified as the focus of the systematic review:

RQ1: What outcomes, relating to students' change and self-development, have been found to be associated with the experience of studying abroad?

RQ2: How have the outcomes of the study abroad experience been (a) explained and (b) theorized in the academic literature?

RQ3: How have the associated outcomes of the study abroad experience been measured and assessed?

RQ4: What individual characteristics are associated with the experience of studying abroad?

RQ5: What situational characteristics are associated with the experience of studying abroad?

## 2. Method:

The systematic review methodology is an effective and rigorous method for reviewing a body of research, requiring the establishment of specific search criteria, assessing the methodological quality of included publications, and adhering to well-defined protocols to reduce reviewer bias during the findings' synthesis (Bennett et al. 2005; Bowman 2007). Reviews enable researchers to conduct an overview of previous study on a given topic, as well as put up a future research plan to address inadequacies in the existing literature. Systematic literature reviews can provide insights into issues that other techniques, such as meta-analysis, ignore, because they can incorporate multiple types of studies (e.g., quantitative, qualitative, review papers), while still reducing researcher bias and optimizing validity (Briner and Denyer 2010).

This research was conducted between 2018 and 2020 and we followed the five recommended procedures by Briner and Denyer (2010) for undertaking a systematic review (i) planning and scoping; (ii) implementing a structured search; (iii) appraising search results against agreed criteria; (iv) highlighting evidence from the included items and (v) developing analysis or synthesis for presentation of key themes emerging. These stages are now described in detail below.

### 2.1.Planning and scoping stage:

We developed and decided on our six research topics throughout the planning and scoping stage. Then, depending on the scope of this study, we performed a database search using the following key phrases, each with the following Boolean tags: “International students” OR “study\* overseas”, OR “study\* abroad” OR “international education”. Our preliminary scoping examined the results of several databases. Following discussions with the research team and librarian, two databases were chosen for open field searches: Business Source Premier (EBSCO) and PsychINFO, generating 3,155 papers.

These first findings indicated the necessity for a more concentrated search approach based on more precise phrases, as well as the development of a list of inclusion and exclusion criteria to guarantee the final results were appropriate for the paper's objective and questions. We only looked for studies that primarily addressed the impact of study abroad on students' personal development and change when developing inclusion criteria. In contrast, we rejected papers that conducted research on counselling, intervention, or training programs (e.g., Cho and Morris, 2015). Furthermore, we excluded comparison studies between locals and international students, immigrants, refugees, or migrants, as well as cross-cultural research. Finally, we rejected studies that had the primary goal of discussing, analysing, or investigating students' adjustment, transition, adaptation, and coping when studying abroad, as well as studies related to health problems, such as those concerned with food intake and dietary disorders.

### 2.2.The Structured search stage:

For the structured search, we drew on the initial two databases and used the search string “international students” OR “study\* overseas”, OR “study\*abroad”, OR “international education” along with “personality” OR “values” OR “identity” OR “attitude” OR “belief.” Based on the first search, the research team chose to add these precise terms to ensure variety

in terms of results and relevance to the purpose of this article. Applying these key phrases yielded a total of 1939 results (containing the item title, abstract, and author information).

### 2.3.Screening stage:

At the screening stage, we initially filtered the results at the screening stage using the "de-duplication" function in the RefWorks (Version 4) bibliographic management software, which reduced the number of search results for appraisal to 1866. The author refined these findings by examining each study's title and abstract, then applying inclusion and exclusion criteria. The inclusion criteria were: studies published only in English, empirical studies, included in peer-reviewed publications, of a longitudinal nature. Exclusion criteria were: removal of books, book chapters, unpublished studies, and purely theoretical or conceptual pieces. Hence, 1804 papers that did not meet the inclusion and exclusion criteria specified above were deleted, bringing the total number of search results for assessment to 35.

### 2.4.Eligibility stage:

The first author and the research assistant independently conducted three sifts during the next stage of search result assessment: a title sift, an abstract sift, and full papers sift. Once the two researchers achieved an agreement, the examination of the experiments proceeded. Both the first author and the research assistant independently applied the inclusion and exclusion criteria during the scanning stage, making identifications at the scoping and scanning stages to confirm that the studies included in the SLR were only relevant to the research topic and chosen research design; for example, only longitudinal studies were included. Ten papers passed the inclusion criteria and were chosen for further review and synthesis. The PRISMA figure below summarizes the process of searching and sifting (see Fig I.)

### 2.5.Included studies and data extraction stage:

The fifth stage data extraction approach began with the use of the Matrix method (Garrard, 2007), which is well-known for offering both a structure and a process for conducting a systematic evaluation of the literature. The Matrix approach entails making notes about each chosen paper in a matrix table with columns and rows. This procedure establishes a consistent structure for data comparison and analysis. To help with this, the author evaluated each of the ten studies using a structured abstraction form within two sets of tables, including the overall studies and research design (see Table I: Overall of the Included Studies), and the mechanisms and outcomes of the impact of study abroad on students (see Table II: Mechanisms and outcomes).

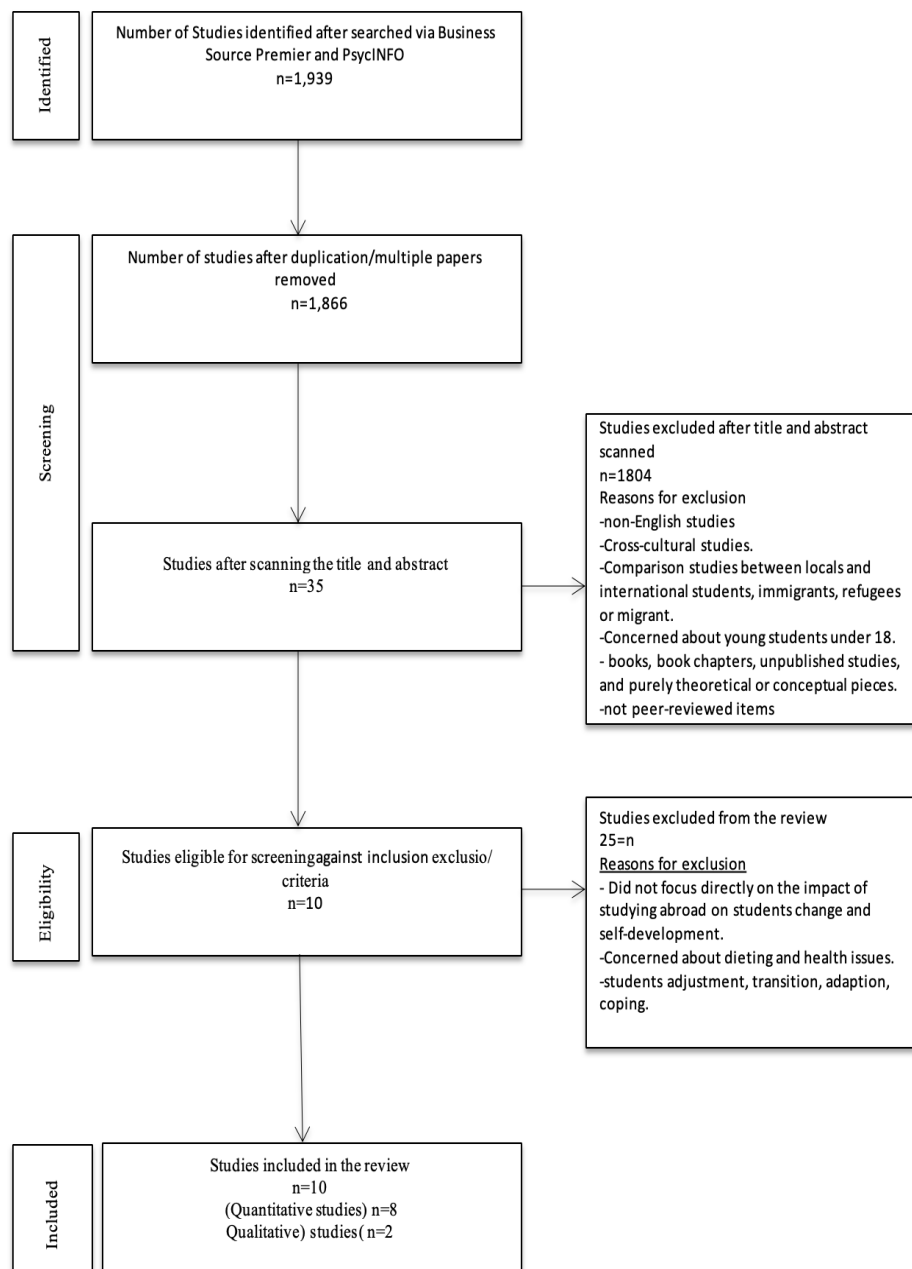


Figure 2. Flow diagram showing identification and selection of publication.

TABLE I  
Overall of the Included Studies

| Study number | Study                                     | Location of study | Host country studied                                                                                                                                                                                                           | Students' nationalities | Type of measurement                              | Research design (Time of measurements)                                           | Intervention              | Duration of the study                        |
|--------------|-------------------------------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|--------------------------------------------------|----------------------------------------------------------------------------------|---------------------------|----------------------------------------------|
| 1            | Zimmermann & Neyer (2013)                 | Germany           | European countries<br>Spain, France, UK                                                                                                                                                                                        | German                  | Self-report questionnaire                        | Three times (before, during their experience and at the end)                     | Control group             | 1 year (short-term and long-term sojourn)    |
| 2            | Petersdotter, Niehoff and Freund. (2017)  | Germany           | European countries                                                                                                                                                                                                             | German                  | Self-report questionnaire                        | Two times before and at the end                                                  | Control group             | 6 months                                     |
| 3            | Ramirez (2016)                            | Colombia          | Different countries                                                                                                                                                                                                            | Colombian               | Self-report questionnaire                        | Two times before and at the end                                                  | Control group             | 6 months                                     |
| 4            | Niehoff, Petersdotter, and Freund. (2017) | Germany           | European countries                                                                                                                                                                                                             | German                  | Self-report questionnaire                        | Two times before and at the end                                                  | Control group             | 1 year                                       |
| 5            | Eby (2005)                                | USA               | The eight semester-long-study abroad groups consisted of Europe, Middle East, Central American, Ireland, and France/Ivory Coast.<br><br>The three three-week study abroad groups were Hawaii, Ireland, and France/Ivory Coast. | American                | Self-report questionnaire                        | Two times at the first week of the semester and at the last week of the semester | Control group             | 8 semesters long study – 3 weeks short study |
| 6            | Hutteman et al. (2015)                    | Germany           | United States, Canada, France, the United Kingdom, New Zealand, Australia and Ireland.                                                                                                                                         | German.                 | Self-report questionnaire                        | Three times before and after the exchange T2 then after one-year T3              | Control group             | 2 years                                      |
| 7            | Black & Duhon (2006)                      | UK                | London                                                                                                                                                                                                                         | American                | Self-report questionnaire                        | At the beginning and during their study abroad experience                        | Cultural awareness course | 1 month                                      |
| 8            | Kumagai (1977)                            | USA               | Japanese, USA                                                                                                                                                                                                                  | Japanese                | Self-report questionnaire                        | Three times before and after the exchange T2 then after one-year T3              | Non                       | 3 years                                      |
| 9            | Kiley (2003)                              | Australia         | Australia                                                                                                                                                                                                                      | Indonesian              | Informal interview and the group workshops       | Interview every three month and group workshop every fourth interview            | None                      | 4 years                                      |
| 10           | Brown & Brown (2009)                      | UK                | UK                                                                                                                                                                                                                             | Different nationalities | In-depth interviews and participant observations | During and at the end                                                            | None                      | 1 year                                       |

TABLE II  
Mechanisms and outcomes

| Study number | Study                       | Outcomes                                              | Mechanisms (Individual level) |                           |                                                                             |                                              |                             |                             |
|--------------|-----------------------------|-------------------------------------------------------|-------------------------------|---------------------------|-----------------------------------------------------------------------------|----------------------------------------------|-----------------------------|-----------------------------|
|              |                             |                                                       | Individual characteristics    |                           |                                                                             |                                              | Situational characteristics |                             |
|              |                             |                                                       | Demographic characteristics   | Personality               | Capability and experience                                                   | Others                                       | "Cultural and social life"  | "Education characteristics" |
| 1            | Zimmermann & Neyer (2013)   | Personality traits                                    |                               |                           |                                                                             |                                              | Relationship Fluctuation    | The study duration          |
| 2            | Petersdotter, et al. (2017) | Personality traits and Self-efficacy                  |                               | High self-efficacy        |                                                                             |                                              | Social contacts per week    |                             |
| 3            | Ramirez (2016)              | Personality traits<br><br>Culturally related outcomes |                               | Openness and extraversion |                                                                             |                                              |                             |                             |
| 4            | Niehoff, et al. (2017)      | Personality traits and Self-efficacy                  | Age                           |                           | Previous International experience                                           |                                              |                             | Educational level           |
| 5            | Eby (2005)                  | Personality traits                                    |                               |                           |                                                                             |                                              | Cultural immersion          | The study duration          |
| 6            | Hutteman, et al. (2015)     | Self-esteem                                           |                               |                           |                                                                             |                                              |                             |                             |
| 7            | Black and Duhon (2006)      | Culturally related outcomes                           |                               | State self-esteem         | Language proficiency<br><br>Educational Level<br><br>Mastered of challenges |                                              | Social inclusion            |                             |
| 8            | Kumagai (1977)              | Personality traits                                    |                               |                           |                                                                             |                                              | Social relations            |                             |
| 9            | Kiley (2003)                | Culturally related outcomes                           | Age                           |                           | Language proficiency<br><br>Educational Level                               |                                              |                             | The study duration          |
| 10           | Brown and Brown (2009)      | Identity change                                       |                               |                           |                                                                             | Freedom from cultural and family expectation |                             |                             |

### 3. Results and discussion:

This paper presents a systematic literature review on the long-term impact of study abroad on international students' change and self-development, with the goal of using all available evidence on this topic (i.e., what we know) to gain an understanding of the weaknesses and limitations of existing knowledge (i.e., what we do not know). Furthermore, the SLR was carried out in order to evaluate the development of a conceptual framework of the long-term benefits of acculturation that explains the process of the influence of study abroad on international students' change and self-development using the acculturation theory (Ward, Bochner and Furnham, 2001). As a result, this aspect of the research is divided into two parts: key themes coming from the SLR and limitations in the existing literature.

#### 3.1.Key themes emerging from the SLR:

Overview of the studies included:

Following an initial search of 1939 studies, we identified ten studies that primarily examined the impact of study abroad on the change and self-development of international students. The ten publications that were reviewed appeared in eight different journals. Half of the articles were published in educational Journals including the Journal of Education for Business (Black and Duhon 2006), Psychology and Education (Kiley 2003), Psychology and Education (Eby 2005), Journal of Teaching in International Business (Ramirez 2016) and, Sociology and Education (Kumagai 1977). The other half were published in Journals of Personality and Social Psychology (Zimmermann and Neyer 2013), Personality and Individual Differences (Niehoff, Petersdotter, and Freund 2017; Petersdotter, et al. 2017), personality Processes and Individual differences (Hutteman et al. 2015), and Existential Analysis (Brown and Brown (2009).

Quality assessment:

Each paper's quality was separately examined by two reviewers in order to make the quality ratings as transparent as possible. Following that, a quality checklist based on recommendations was used to the contributions of a number of researchers (Briner and Denyer 2010; Rojon, McDowall, and Saunders 2011; Walsh and Downe 2006; Snape et al. 2017). By using this approach, each paper was given a quality rating out of a possible nine points (Robertson et al., 2015). For the papers included, the overall quality rating was 7.5 out of a possible 9. Ratings can be found in Supplementary Table 1 and 2.

The reviewers' independent quality ratings were significantly matched, indicating a high level of agreement. As a result, the results and synthesis of the SLR will be explored across four themes based on the acculturation theory: acculturation outcomes, mechanisms as well as research design implemented by the included studies.

##### 3.1.1. Acculturation outcomes:

An examination of the relevant studies has revealed a variety of acculturation outcomes associated with study abroad experience. Five studies have linked personality traits to the experience of studying abroad (Eby 2005; Kumagai 1977; Niehoff, Petersdotter, and Freund 2017; Ramirez 2016; Zimmermann and Neyer 2013). Three studies indicated culturally related outcomes (Black and Duhon 2006; Kiley 2003; Ramirez 2016). One study indicated

self-efficacy (Petersdotter et al. 2017), another self-esteem (Hutteman et al. 2015) and a third study identity change (Brown and Brown 2009) as outcomes of the study abroad experience.

### 3.1.2. Mechanisms:

Overall, the ten studies included in the SLR only looked at part of the processes at the micro-level (i.e., individual level). Table II depicts the research' fragmented structure, indicating a number of processes discovered to be significant to describing how the study-abroad experience effects students' change and self-development. Only the study by Black and Duhon (2006) failed to identify any processes connected with the influence of the study-abroad experience on the outcome studied. Based on the acculturation theory, we classified these factors under the overarching dimension type, with a particular emphasis on "individual characteristics" and "situational characteristics" (Ward, Bochner and Furnham, 2001).

#### 3.1.2.1. Individual characteristics:

The ten studies reveal a number of mechanisms important to the relationship between study abroad and students' change and self-development. These mechanisms reflect the students' individual differences because each has unique characteristics and experiences that lead to different outcomes. As shown in Table II, we have classified individual mechanisms into four categories: demographic characteristics, personality, capability and experience, and others.

**Demographic characteristics:** The only factor identified in this category is age, which has been identified as a predictor of students' adjustment in two other studies (Kiley, 2003; Niehoff, Petersdotter, and Freund, 2017). Kiley's (2003) study considers student age to be a predictor of students' level of adjustment. According to the study, there are three profiles that reflect students' level of adjustment abroad: the transformer, the strategist, and the conservative. Each degree has distinct characteristics in this context. Transformers, for example, have altered their worldview and recognized how the new society influences and affects them through experience and reflection. The perceived change is then at the cognitive and behavioural levels. In contrast, the strategist suggests that the students develop tactics necessary to satisfy all of their needs and meet all of the expectations aboard in order to return home feeling that their stay was a success. Yet, the conserver reported no substantial changes in their social, emotional, or intellectual lives.

Kiley's (2003) study looked at age as a predictor of students' degree of adjustment and discovered that a person with transformer qualities is more likely to be under 35, whereas a person with strategist or conserver traits is more likely to be over 35. Additional traits discovered by each group will be highlighted in subsequent categories. In contrast, Niehoff, Petersdotter, and Freund (2017) discovered that age has an unexpected effect on students' motivation to study abroad, with older students opposing study abroad due to the fear of a long period of study, as well as higher pressure to finish the course as soon as possible due to their circumstances, such as family responsibilities.

**Personality:** Four personality qualities were singled out. First, Petersdotter, Niehoff, and Freund (2017) show that students with high self-efficacy are more likely to overcome problems and have a retrospective impression of fewer difficult situations. Second, Enrique (2016) emphasises that openness and extraversion, as well as the other three big-five personality traits (conscientiousness, agreeableness, and neuroticism), are substantially correlated with the initial degree of intercultural competence associated with the decision to

study abroad. Individual personality, however, was found to play a role in predicting the key independent factors and the initial level of intercultural competence in this study, but it did not moderate the association between study abroad and intercultural competence.

Hutteman et al. report the fourth personality trait as state self-esteem (2015). The study discovered an interchangeable association between state self-esteem and social inclusion, demonstrating that the student's degree of state self-esteem predicts the change in self-esteem level during a one-year sojourn experience. Lastly, four distinct personality traits and characteristics were discovered to be very useful in facilitating students' transition and achievement of a better experience abroad at the individual, social, and cultural levels. They, in turn, had a significant impact on their development, but only high levels of these traits have a beneficial impact. Meanwhile, students at lower levels encounter challenges in their adjustment socially and culturally.

**Capability and experience:** Four characteristics were identified here: previous international experience, language proficiency, educational level, and ability to master challenges. Previous international experience has been demonstrated to have a beneficial impact on students' commitment to study abroad (Niehoff, Petersdotter and Freund, 2017). Additionally, Niehoff, Petersdotter, and Freund (2017) believe that past sojourners (with previous study abroad experience) have an advantage because they have gained familiarity with living abroad and know what to expect, making the next experience less challenging for them. Hutteman et al. (2015) and Kiley (2003) both emphasise the importance of language proficiency and educational level in this context, indicating that these two elements have a substantial impact in students' adjustment. Language competence and educational level, according to Kiley (2003), are predictors of students' degree of adjustment. As previously stated, Kiley's (2003) study identifies three levels of change: transformer, strategist, and conservator. Each degree has a different level of these two capabilities (i.e., language proficiency and education levels), with transformer students having the highest language test scores and typically enrolled in a PhD course, whereas strategist and conservator students have lower English test scores and lower educational attainment levels.

Hutteman et al. (2015), on the other hand, discover that a student's proficiency in the host-country language enhances state self-esteem and perceived social inclusion. According to Hutteman et al., a fourth indicator is the ability to master challenges (2015). The researchers discovered that students with greater experience overcoming obstacles are better able to adjust when studying abroad. Finally, these studies have shown four qualities that have the potential to improve the student experience overseas. Whether or if the student possesses one or more of these abilities may lead to a more successful experience and better adjustment abroad.

**Others:** The fourth category of individual includes the feeling of freedom from familial and cultural expectations. According to Brown and Brown (2009), this serves as a vehicle for students' self-discovery and learning to be autonomous, adaptable, and assertive.

#### 3.1.2.2. Situational characteristics

The situational characteristics were divided into two categories: cultural and social life, and educational experience.

**Cultural and social life:** Being sociable and making friends with locals or foreign students is one of the catalysts that drives students' changes and influences their growth while studying

abroad. Six other studies have emphasised the significance of social connection status throughout the study abroad experience and its influence on students' personality transformation. Kumagai (1977) conducted the first study on this topic, discovering that social relationships mediate the influence of study-abroad experience on attitudes and personality of Japanese students. Nevertheless, Ramirez (2016) linked relationship gain and loss to changes in the personality traits of extraversion, agreeableness, and openness. For example, the study discovered a negative effect of national connection gains (i.e., with other foreign students from the origin country) on agreeableness change. According to Petersdotter, Niehoff, and Freund (2017), the number of social interactions met with each week influences the development of high self-efficacy overseas.

Hutteman et al. (2015), on the other hand, emphasise that there is an interchangeable relationship between self-esteem and social inclusion, suggesting that students who are more socially inclusive have greater self-esteem than those who are socially restrictive. Two further studies demonstrate the impact of cultural immersion and connection with local people on the personality of study abroad participants (Eby, 2005; Niehoff, Petersdotter and Freund, 2017). Finally, the amount and quality of their international contacts influence students' experiences in terms of personality change, cultural adaptation, and self-development.

Education experience: The length of the study abroad program has been determined to play a significant role in the impact of the study abroad experience on students (Eby, 2005; Kiley, 2003; Zimmermann and Neyer, 2013). According to Eby (2005), the length of the study program and the amount of time spent abroad have an impact on changes in students' personality traits. The outcomes of this study (2005) found that students on long-term programs had a "great signature" for personality development when compared to solely short-term study abroad students and control groups. Personality changes include an increase in abstract reasoning, a decrease in consciousness, an increase in self-reliance, a drop in extraversion, and a loss in self-control.

Furthermore, Kiley (2003) discovers that study duration influences student adaptation to a new culture, and hence the degree of adaptability. These data suggest that transformers adjusted better than other character types since they typically spend more than three years overseas because their programs are typically research-based, with frequent interactions with their supervisors. Yet, because the other categories spend less time abroad (strategies: 2-3 years, conservers: less than 2 years), they adjust more slowly than the transformers. Furthermore, Zimmermann and Neyer (2013) discover that the longer the study program lasts, the more relationship fluctuation the students experience (i.e., national relationship loss, international relationship loss, national relationship gain, and international relationship gain), which leads to changes in personality traits. For example, they discovered in their (2013) study that studying abroad had an effect on students' openness qualities when they socialize more with international students.

Moreover, the above characteristics differ in terms of their associated effective domains. While personality is a part of the psychological domain, taking into account students' skills as well as their cultural and social lives, educational elements are a feature of the sociocultural domain. Ward and Kennedy (1999) highlighted these two domains in their sojourn adjustment paradigm, arguing that the psychological and sociocultural adjustments acquired are influenced by various types of variables. However, a number of studies, including (Hart, 1998; Zhang and Goodson, 2011; Furnham and Erdmann, 1995; Oguri and Gudykunst,

2002), have found that psychological and sociocultural adjustments are connected domains, with some characteristics predicting one domain also predicting the other. Based on the findings presented here, we can affirm the interdependence of the mechanisms' factors. For example, Hutteman et al. (2015) discovered that language competence, education level, and the sensation of mastering obstacles affect students' social inclusion, which predicts students' high degree of self-esteem.

Thus, based on the findings presented above, we can conclude that both types of mechanisms work effectively together to assist cross-cultural transition and explain the process of its impact on students' change and self-development. Yet, cultural and social relationships, as well as the length of the study, are important elements in this relationship becoming effective. First, the duration of the study abroad program has an effect on students' level of adjustment; that is, the longer the study abroad program, the more likely the students will adjust to the host nation. Second, the cultural and social life faced by students originates from the previously described individual traits.

### 3.1.3. Research design:

The research designs used by the papers included in this study exhibit some variance as well as similarities and dissimilarities. So, this part addresses three issues: the study context, data collection methods, and research design procedures (see Table I).

#### 3.1.3.1. Study context:

The ten studies were all undertaken in western countries, with Germany having the most studies (Zimmermann and Neyer, 2013; Petersdotter, Niehoff and Freund, 2017; Niehoff, Petersdotter and Freund, 2017; Hutteman et al., 2015). Two studies were undertaken in the United States (Eby, 2005; Kumagai, 1977), two studies in the United Kingdom (Black and Duhon, 2006; Brown and Brown, 2009), and two research in Australia (Ramirez, 2016) and Colombia (Kiley, 2003). Furthermore, we discovered six studies that relied on the participation of national students. For example, Eby (2005) conducted a study in the United States with American students on an overseas assignment. Four studies, however, chose overseas students studying at their home universities (Black and Duhon, 2006; Kumagai, 1977; Kiley, 2003; Brown and Brown, 2009). American students in the United Kingdom, for example, were studied in (Black and Duhon, 2006), while Japanese students in the United States were studied in (Kumagai, 1977).

It is worth noting that seven out of ten research used interventions to control their outcomes. We also noticed that the six studies that chose their candidate students from their native nation where the study was conducted used control groups that included students who were similar to the study participants but did not travel overseas, such as (Hutteman et al., 2015). Ramirez (2016), on the other hand, controlled the outcomes by selecting study candidates from among international students and implementing a cultural awareness course to record students' levels of cultural awareness before and after their course abroad.

#### 3.1.3.2. Data collection methods:

Eight of the ten studies used explicitly longitudinal quantitative methods, whereas the remaining two used longitudinal qualitative approaches. The quantitative research relied on a

self-report questionnaire survey, but the two qualitative studies used a different data collection approach. Kiley (2003) conducted informal interviews with each participant in a group workshop setting, whereas Brown and Brown (2009) used in-depth interviews with each participant in addition to participant observation.

#### 3.1.3.3. Research design procedures:

While all ten studies use a longitudinal research design to capture changes in the intended variables over time, the studies differ in terms of study time duration, i.e., long-term versus short-term study duration. The long-term study period lasts six months to four years, whereas the short-term study period lasts three weeks to three months (see Table I). We can observe that seven research used long-term study duration, while only two used both long-term and short-term study duration.

These studies performed a number of measurements over time to capture any changes that happened. Because of the study objectives, the time measuring events used by the selected papers vary. Four studies utilized a two-time test, three used three-time tests, two used four-time tests, and one used an eight-time test.

Furthermore, we discovered that the number of time measures used by the research tends to rise with study duration. The three studies with short-term study durations employed two-time tests for their students, whereas the studies with long-term study durations used three-times and four-times measurements. The only study that used the most time measurements (eight times) had the largest time frame of four years (Kiley 2003).

### 3.2. Limitations of extant research

A number of limitations have been identified based on the SLR results and synthesis described above. First, while many approaches have attempted to comprehend the cross-cultural transition and its results, taking into account psychological and sociocultural causes, the impact of cultural differences between the sojourners' home-country and the host-country was not highlighted by the studies included. Cultural differences can play a crucial role in defining the difficulties of cross-cultural transition experiences, as some people have difficulty interacting and moving across cultures. Many studies have found a link between cultural differences and cross-cultural transition and adjustment (e.g., Gudykunst, Ting-Toomey and Chua, 1988; Redmond and Bunyi, 1993). An analysis of this idea is thus critical in investigating the long-term impact of study abroad on the change and self-development of international students.

Second, in terms of study environment, all of the studies featured here are conducted in Western cultures, but just three studies have studied non-western participants, despite the fact that international students surpassed five million in 2014 and are expected to reach eight million by 2025 (ICEF Monitor, 2017). The ICEF Monitor (2017) does list non-western nations that host international students, such as China, Japan, and Russia. Also, there are observed variances of international students overseas in terms of nations. For example, as of 2020, the Higher Education Statistics Agency (HESA) stated on its website where do higher education students originate from? The majority of international students in the UK come from non-western nations such as China, Malaysia, the Middle East, India, Singapore, Thailand, and Nigeria. As a result, we believe that future research should investigate not only

more non-western international students studying in Western countries, but also non-western host cultures where a big number of international students study. Furthermore, we believe it is important to identify other types of changes, mechanisms, and predictors associated with the impact of these various societies, cultures, and ethnicities on students because they differ culturally, politically, and economically from western societies and thus may result in different outcomes.

Third, we discovered that none of the studies examined whether macro-level changes happened after students returned to their home countries in terms of data collection methods and the occasions when time measurements were used. It is critical to analyse the nature of the international experience over time and evaluate its impact to determine whether the knowledge, skills, attitudes, and behaviors gained while studying abroad have a long-term impact. As a result, it is a need that the same factors be examined after the participants return to their home countries. Furthermore, it has been discovered that using a mix-methodologies strategy (a longitudinal approach paired with other methods) is particularly beneficial in analysing people's experiences and change over time (Malina, Nreklit, and Selto, 2011). However, the majority of the studies selected in this review used primarily quantitative methods, with only two using qualitative approaches. As a result, we propose that future studies consider adopting mixed methods to get more comprehensive evidence on this topic.

Finally, longitudinal research design is well-known for its usefulness in obtaining information on individuals' knowledge, skills, attitudes, views, and behaviors, which can develop or change during their lives or as environmental circumstances change (Holland, Thomson and Henderson, 2006). As a result, we encourage fellow researchers to conduct more longitudinal studies, given there has been little research on this topic using this precise design to date.

### 3.3. Development of a conceptual framework:

While the number of international students has expanded considerably in recent decades, most study has focused on the problems that international students have in adjusting to their new environment. Change and self-development have received little emphasis in previous research on the benefits of study abroad to international students.

Since the Institute for International Education of Students' (IIE) most recent findings confirmed that study-abroad experience has educational benefits, cultural development, career impact, and personal growth, a number of studies have shed light on the benefits of study-abroad experience on students' change and personal development. These include problem-solving abilities (e.g., Cho and Morris, 2015), intercultural competence (e.g., Ramirez, 2016), self-discovery and recognition (e.g., Brown and Brown, 2009), personality development (e.g., Zimmermann and Neyer, 2013; Niehoff, Petersdotter, and Freund, 2017), and high self-efficacy (e.g., Petersdotter, Niehoff and Freund, 2017). However, based on the SLR findings and limitations, existing studies have maintained a narrow focus in terms of study abroad outcomes, primarily concerned with changes in personality traits (Zimmermann and Neyer, 2013; Petersdotter, Niehoff, and Freund, 2017; Eby, 2005) and related cultural outcomes such as cultural intelligence and competence (Ramirez, 2016; Black and Duhon, 2006; Kiley, 2003). As a result, further research is needed to discover what other outcomes and benefits international students may get from studying abroad in terms of their emotional, behavioral, and cognitive processes.

The value inherent in addressing this issue arises from a lack of understanding about what to expect from a study abroad experience, which extends beyond acquiring students a degree; rather, it is considered an experiential learning experience that results in greater personal and professional advantages (Ng, Van Dyne and Ang, 2009). As a result, international students who have this sort of knowledge about the benefits of study abroad and how to obtain these benefits will be able to maximise the benefits of their study abroad experience. Furthermore, governments that sponsor them see study abroad as a worthy investment for the entire society (Altbach and Engberg, 2014). As a result of knowing what to expect from their study abroad, graduates can help focus their attention on educating their future students about the expected benefits of study abroad, how to achieve these benefits, and how to help put strategies in place to support the long-term sustainability of these benefits. Understanding the benefits and results of study abroad may thus aid in recognizing them and identifying the mechanisms that support or hinder them.

However, further research should be conducted to see whether these anticipated benefits or outcomes are sustained following return. It is so critical to research the long-term influence of study abroad on international students' personal development and change. As a result, this study attempts to identify the available data in the current literature to expand on the SLR results and suggest a conceptual framework for future research to adopt and assess. The conceptual framework was developed using the theory of acculturation (Ward, Bochner, and Furnham, 2001), with the goal of incorporating some of the limitations in the existing literature and expanding the theory to include the impact of home-country transition on the sustainability of the perceived benefits of study abroad.

#### 3.3.1. The conceptual framework (the long-term benefits of acculturation):

The main goal of developing this conceptual framework is to explain the long-term impact of study abroad on students' change and self-development, indicating the potential benefits or outcomes of study abroad (in terms of affective, behavioral, and cognitive processes) and the mechanisms that allow these outcomes to be achieved. Consequently, the framework contains two phases: the first during study abroad and the second after six months of returning home to emphasise the influence of home-country transition on the perceived outcomes of study abroad - the suggested conceptual framework is shown in Figure 2.

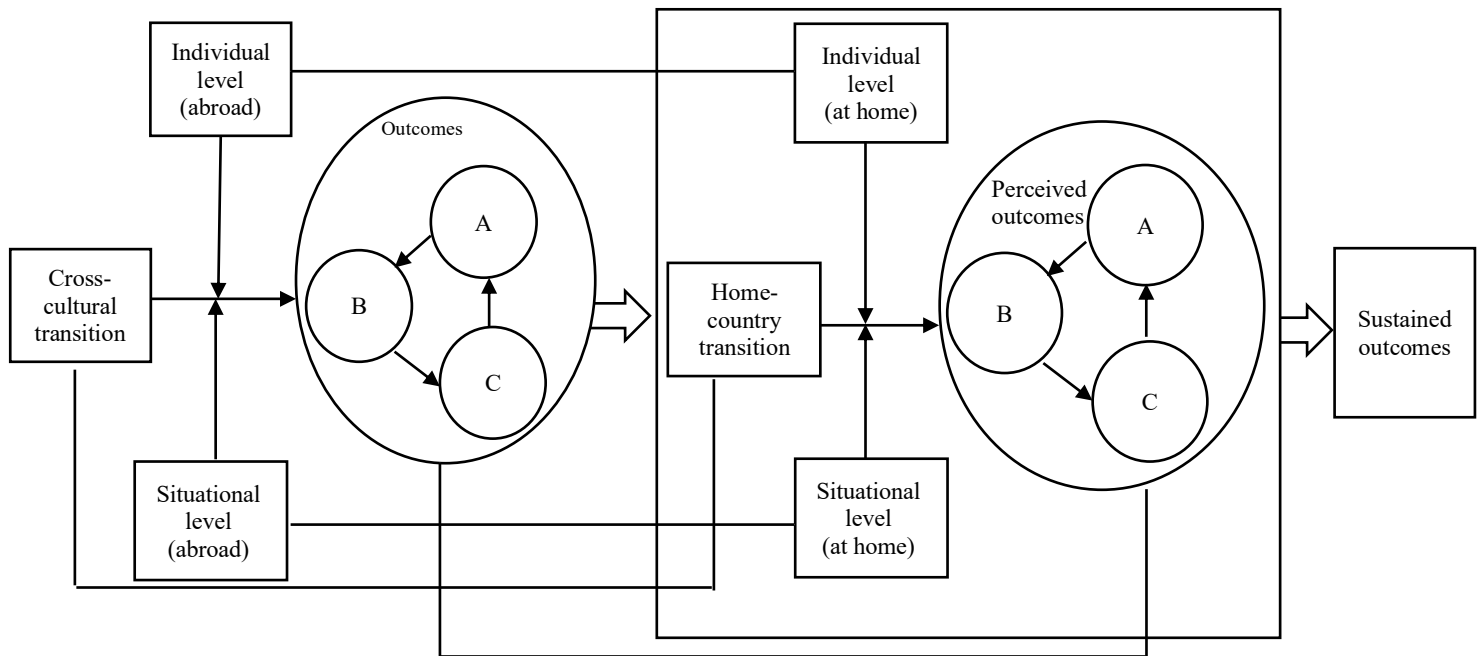


Fig 3. The conceptual framework (the long-term benefits of acculturation).

Note: A: Affective; B: Behavioural outcomes; C: Cognitive process

#### 4. Conclusions:

This study provides a thorough review and synthesis of the current literature on the impact of study abroad on the change and self-development of international students. In particular, we investigated the micro-level elements linked with students' change and self-development in terms of their knowledge, abilities, attitudes, views, and behaviors. We used a narrative synthesis approach, which is the most widely used in social sciences and organizational behavior. We focused our search on longitudinal studies that looked at how students changed over time. Using a detailed examination and application of inclusion criteria, we discovered that ten research were found and mostly addressed intrapersonal level change. This study has a number of implications. First, while the included studies demonstrated some of the expected outcomes of study abroad as well as certain predictors of these outcomes, the overall picture of their experience remains unclear. Analysing the many ways to determining the most crucial aspects from psychological and sociocultural perspectives is critical, particularly for potential and future students, governments, and institutions interested in the advantages of studying abroad. Second, it is critical for research to ascertain whether the changes mentioned happened when the students returned home. Finally, we discovered a small sample of variety in terms of home country and age. Fourth, few research were planned in accordance with quality assurance criteria. As a result, a conceptual framework based on the acculturation model (Ward, Bochner, and Furnham, 2001) has been established to encompass the influence of home-country transition on the perceived results of study abroad and to extend the current literature.

According to the framework proposed here, it is critical to use more rigorous research designs, to follow up with students after their studies, and to consider psychological and sociocultural elements (at the individual level) after return, which could influence the sustainability of study abroad outcomes. Only then will we be able to comprehend the true benefits of studying abroad in the global society. Finally, this research is considered the starting point for future research that focus on the sustainability of the perceived benefits of

international experience in particular those related to students change and self-development. Therefore, we anticipate the suitability of this paper to the British Academy of Management (BAM) conference this year which focus on sustainability and continuous change.

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## Appendixes

Table 1. Quality appraisal methods

The inclusion and exclusion criteria provide a minimum standard of quality for each included study. In addition, an overall quality score (ranging from one (*low overall quality*) to nine (*high overall quality*) for each paper was calculated, relating to the clarity of the stated study aim, and appropriateness of Method, Design, Sample, Results and Ethics, to meet the aim (on the criteria below). This follows guidance from Briner and Denyer (2012), Robertson et al. (2015) and Rojon et al. (2011).

### Quality criteria

|              |                                                                                                                                                                                                                                                                                                                                              |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Study Aim    | <ul style="list-style-type: none"> <li>Clearly stated – theoretical rationale may be included, but this is not a precursor (e.g. to accommodate grey literature)</li> </ul>                                                                                                                                                                  |
| Study Type   | <ul style="list-style-type: none"> <li>Qualitative, quantitative or mixed method approach is clearly stated and relevant to the aim</li> </ul>                                                                                                                                                                                               |
| Design       | <ul style="list-style-type: none"> <li>The data collection methods are appropriate for the type of data required</li> <li>The measures have been tested and validated to capture the complexity/diversity of experience and illuminate context in sufficient detail</li> </ul>                                                               |
| Population   | <ul style="list-style-type: none"> <li>Is reported and suitable for the purpose of the study</li> </ul>                                                                                                                                                                                                                                      |
| Sample       | <ul style="list-style-type: none"> <li>The sample is sufficiently large to test for the desired impact</li> <li>The sample is appropriate for the research question</li> <li>There is an explanation as to why the participants selected were the most appropriate to provide access to the type of knowledge sought by the study</li> </ul> |
| Analysis     | <ul style="list-style-type: none"> <li>The methods used to analyse the results are appropriate given the data being analysed and the purpose of the analysis?</li> </ul>                                                                                                                                                                     |
| Key Results  | <ul style="list-style-type: none"> <li>There is a clear exposition of how interpretation led to conclusions?</li> </ul>                                                                                                                                                                                                                      |
| Missing Data | <ul style="list-style-type: none"> <li>This is reported and analysed where necessary?</li> </ul>                                                                                                                                                                                                                                             |
| Ethics       | <ul style="list-style-type: none"> <li>Demonstration of sensitivity to ethical concerns</li> </ul>                                                                                                                                                                                                                                           |

Questions adapted from Briner and Denyer (2012), Rojon et al. (2011), Walsh and Downe (2006), Snape et al. (2016).

|  |                                                                                                                                                                                                                                                                                                           |
|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <ul style="list-style-type: none"> <li>subjective or otherwise validated)</li> <li>Key numerical results (including proportions experiencing relevant outcomes in each group, means and medians, standard deviations, ranges and effects sizes)</li> <li>Inadequately reported or missing data</li> </ul> |
|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Adapted from Higgins and Green (2008) by Briner and Denyer (2012). Template adapted by the author.

Table 2. Systematic Literature Review: Included Studies Quality Assessment

| <i>Study no.</i> | <i>Aim</i> | <i>Type</i> | <i>Design</i> | <i>Population</i> | <i>Sample</i> | <i>Analysis</i> | <i>Results</i> | <i>Missing data</i> | <i>Ethics</i> | <i>Agreed score</i> | <i>Notes</i>                                                                                                                                                     |
|------------------|------------|-------------|---------------|-------------------|---------------|-----------------|----------------|---------------------|---------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                | 1          | 1           | 1             | 1                 | 1             | 1               | 1              | 1                   | 0             | 8                   | no mention of ethics.                                                                                                                                            |
| 2                | 1          | 1           | 1             | 1                 | 1             | 1               | 1              | 1                   | 0             | 8                   | no mention of ethics.                                                                                                                                            |
| 3                | 1          | 1           | 1             | 1                 | 1             | 1               | 1              | 0                   | 0             | 7                   | no mention of ethics.                                                                                                                                            |
| 4                | 1          | 1           | 1             | 1                 | 1             | 1               | 1              | 1                   | 0             | 8                   | no mention of ethics and some missing data.                                                                                                                      |
| 5                | 1          | 1           | 1             | 0                 | 1             | 0               | 1              | 0                   | 1             | 6                   | use of t-tests to examine differences between mean scores before and after for numerous groups. Very long-winded and messy, could be better examined with Anova. |
| 6                | 1          | 1           | 1             | 1                 | 1             | 1               | 1              | 1                   | 0             | 8                   | no mention of ethics                                                                                                                                             |
| 7                | 1          | 1           | 1             | 1                 | 0             | 0               | 0              | 1                   | 1             | 6                   | use of very basic stats and analysis methods - t-tests and descriptive stats, when could use ANOVA. Sample size is too small for inferential stats (N=26).       |
| 8                | 1          | 1           | 1             | 1                 | 1             | 1               | 1              | 1                   | 0             | 8                   | no mention of ethics.                                                                                                                                            |
| 9                | 1          | 1           | 1             | 1                 | 1             | 1               | 0              | 1                   | 1             | 8                   | clustering of data in terms of 'types' of people, without clear identification of themes influencing change.                                                     |
| 10               | 1          | 1           | 1             | 1                 | 1             | 1               | 0              | 1                   | 1             | 8                   | No clear identification of themes and how the analysis produced the results.                                                                                     |

